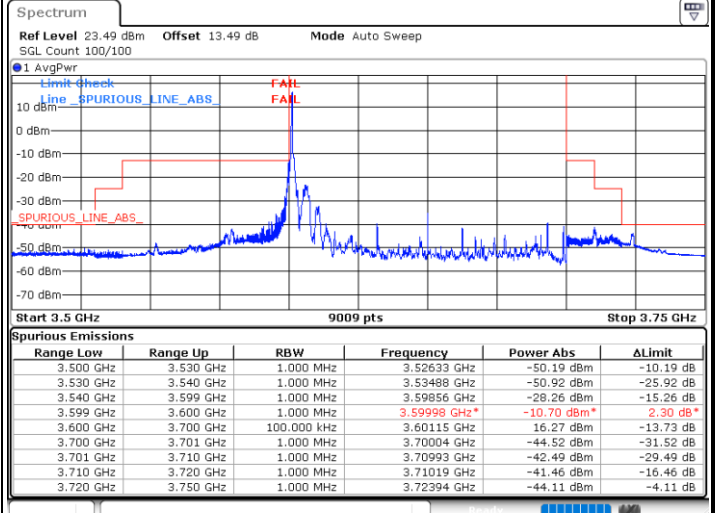
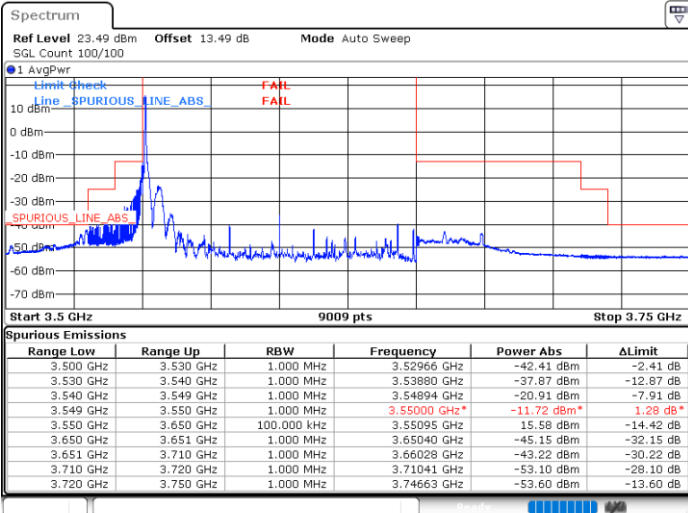




FR1 n48 / 100MHz / DFT-S OFDM QPSK

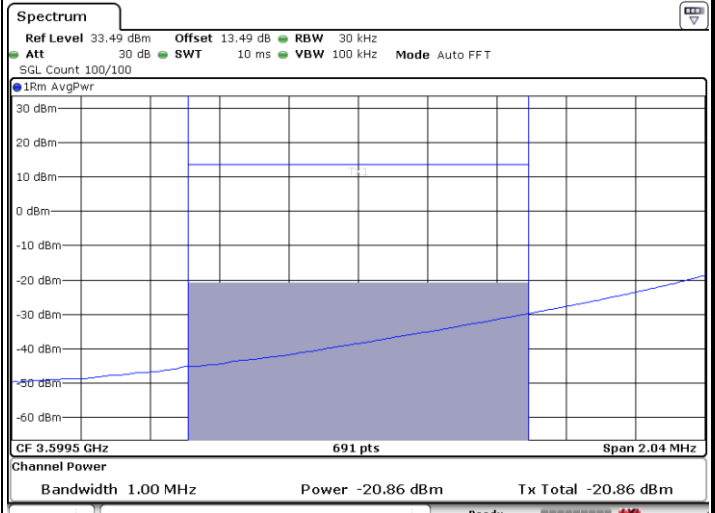
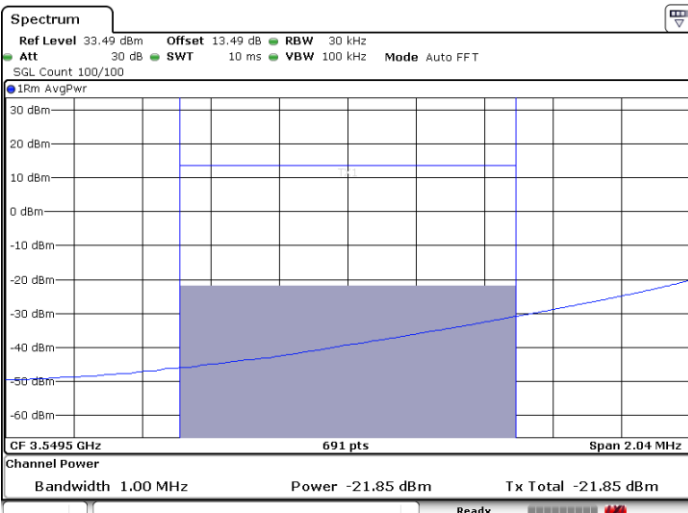
Lowest Band Edge / 1 RB 0

Highest Band Edge / 1 RB 0



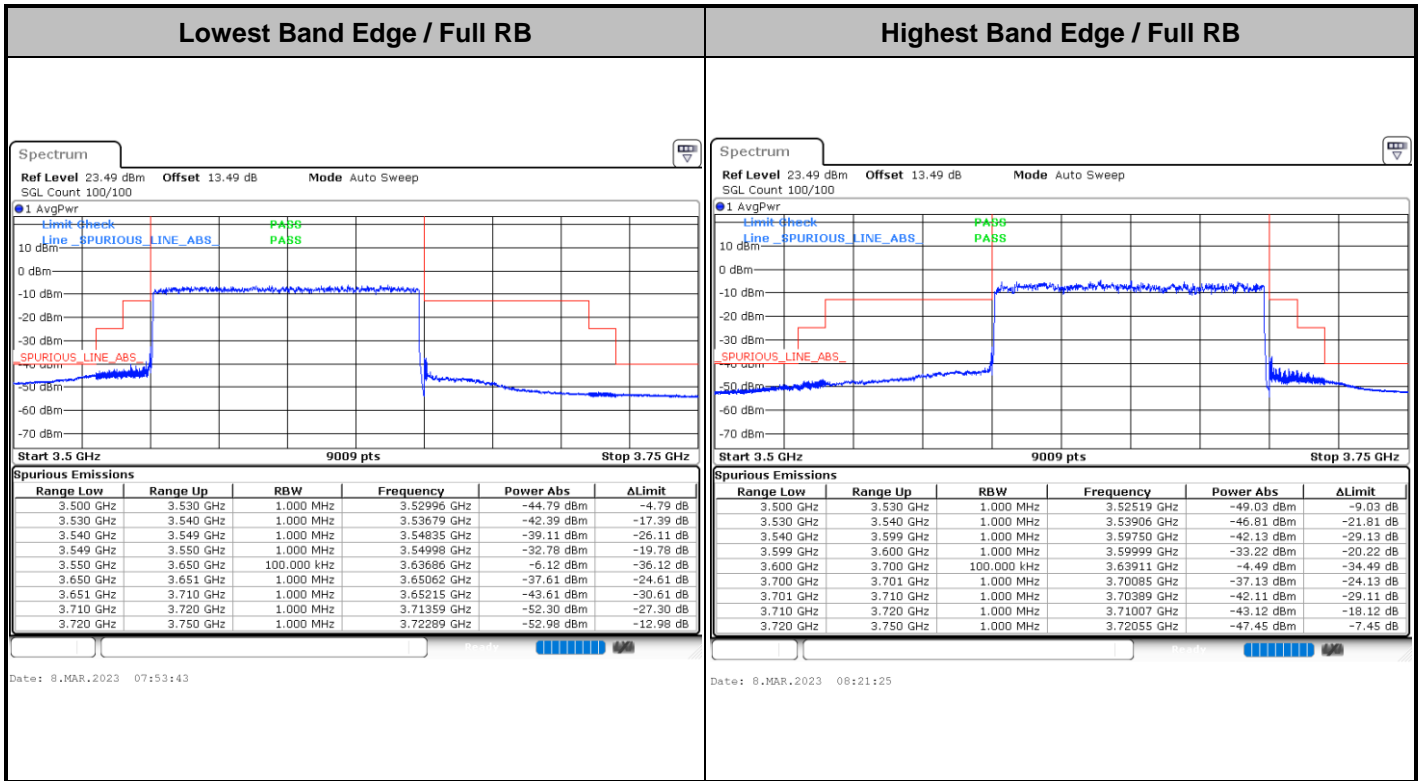
Date: 8.MAR.2023 07:47:15

Date: 8.MAR.2023 08:12:45



Date: 8.MAR.2023 07:58:00

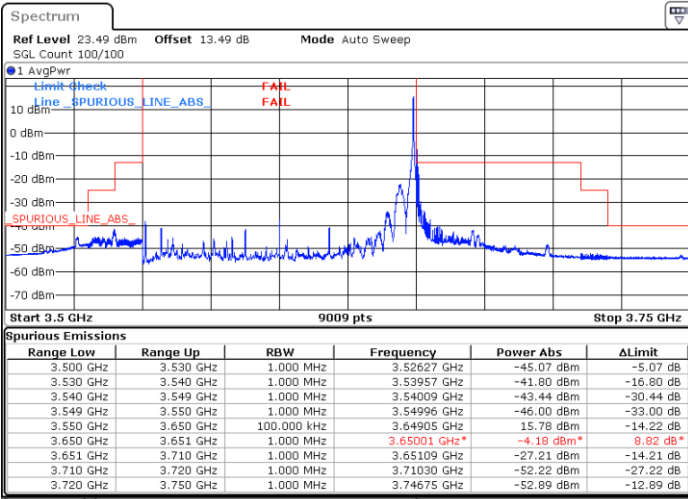
Date: 8.MAR.2023 08:22:46



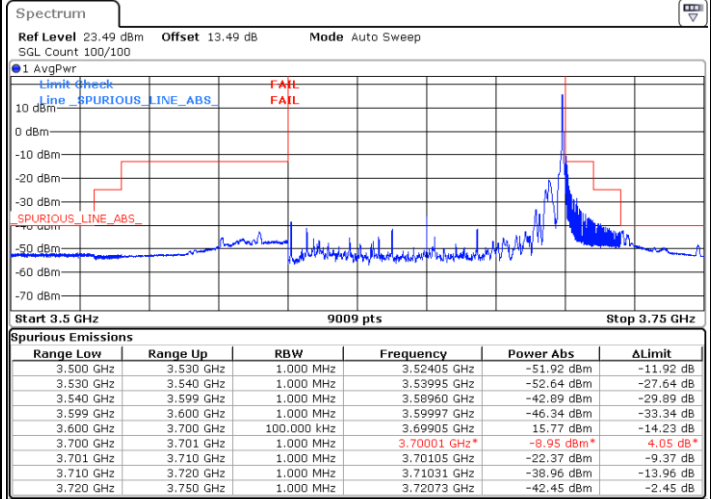


Lowest Band Edge / 1 RB MAX

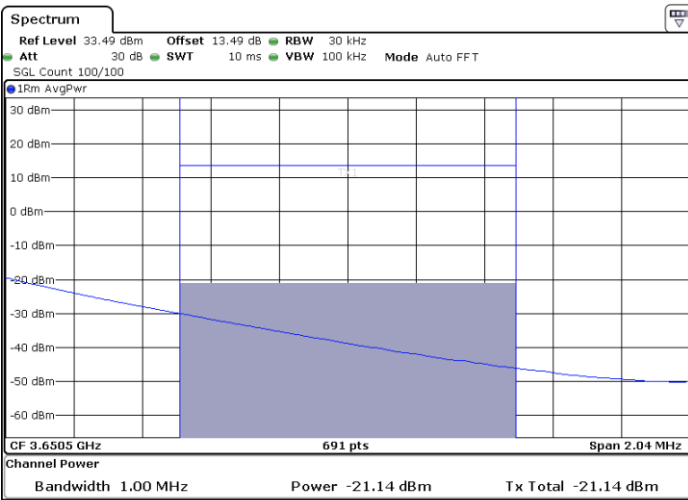
Highest Band Edge / 1 RB MAX



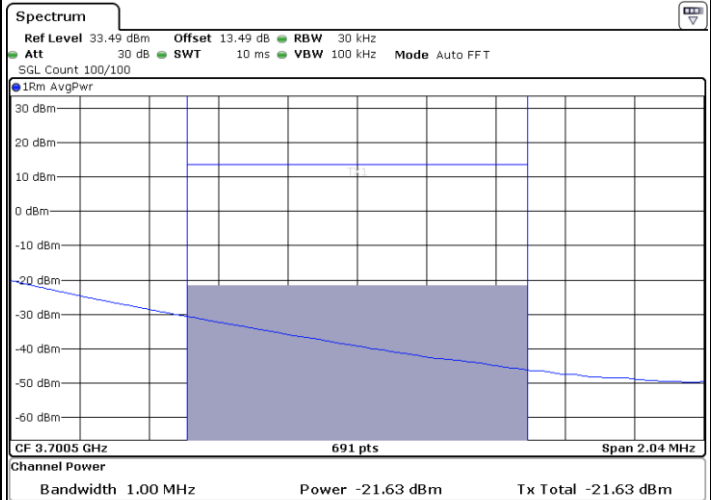
Date: 8.MAR.2023 07:48:29



Date: 8.MAR.2023 08:13:41



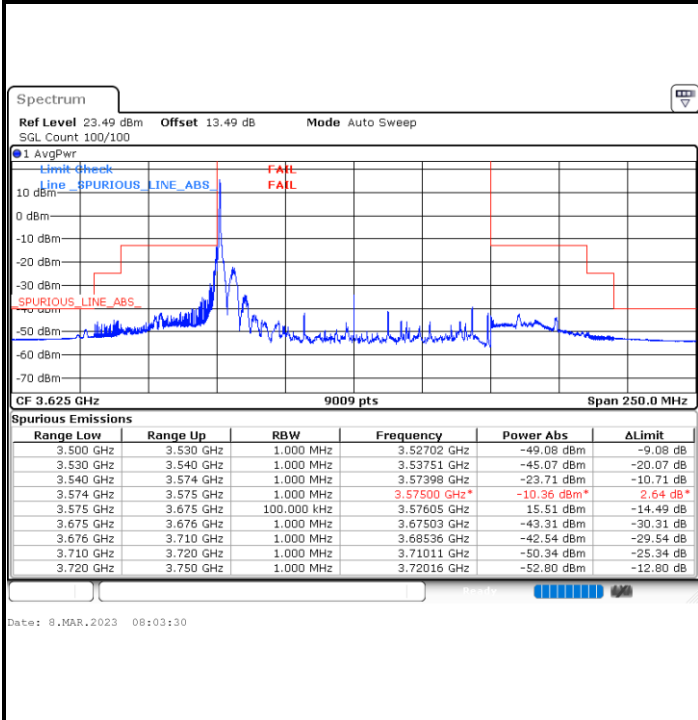
Date: 8.MAR.2023 07:58:45



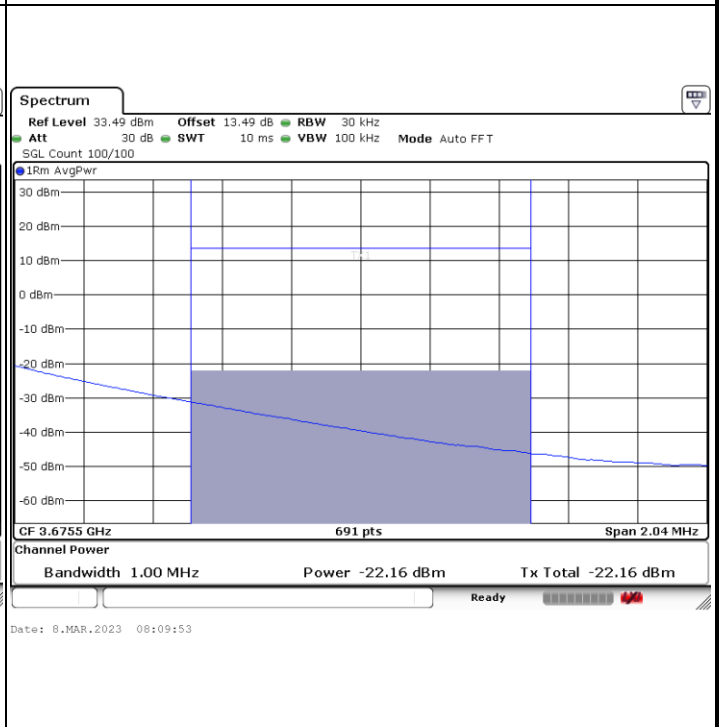
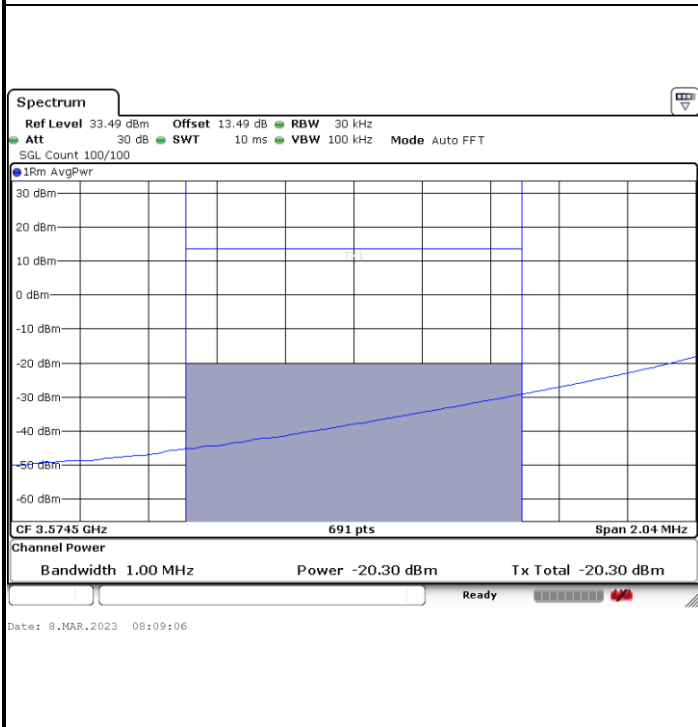
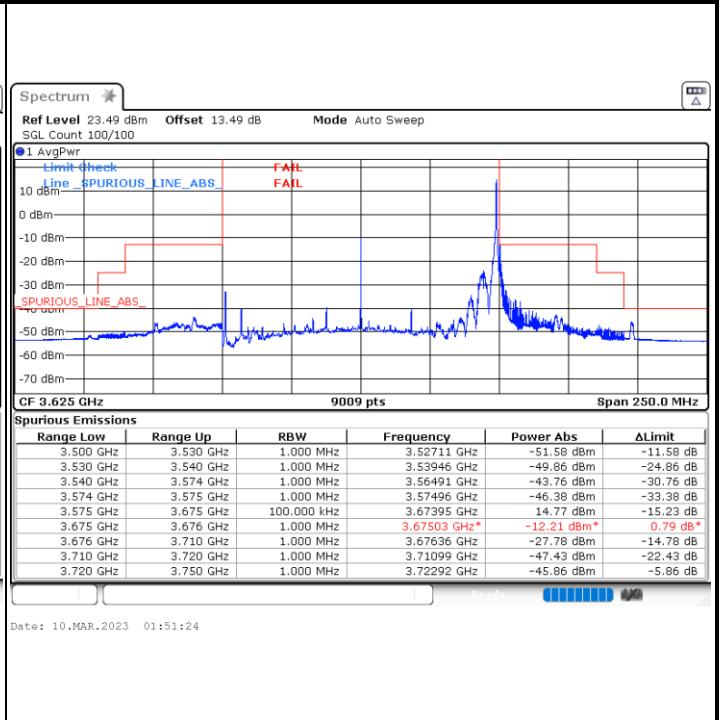
Date: 8.MAR.2023 08:23:21

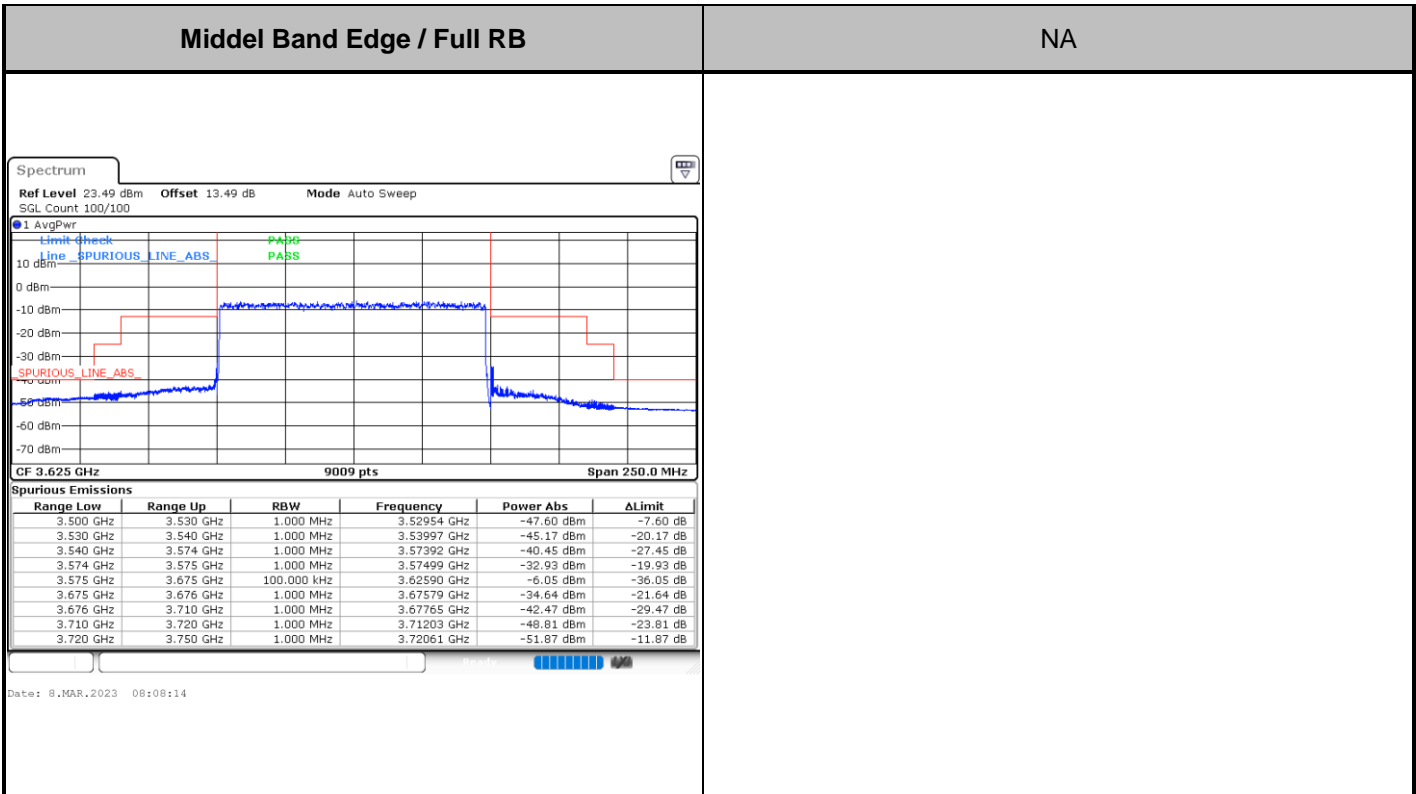


**Middel Band Edge / 1 RB 0**



**Middel Band Edge / 1 RB MAX**





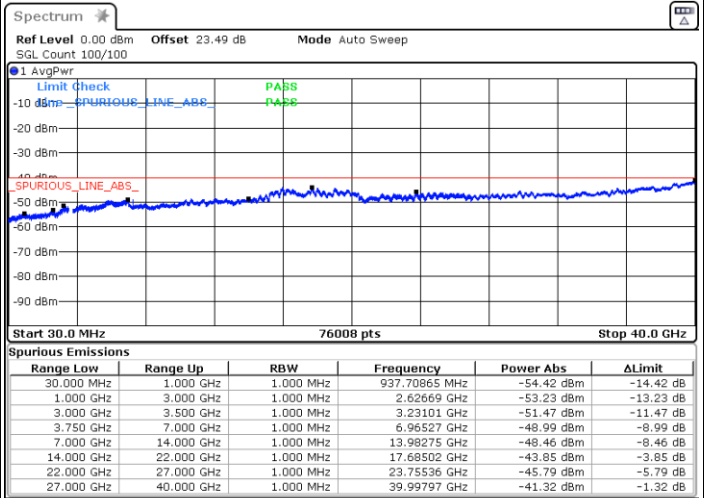
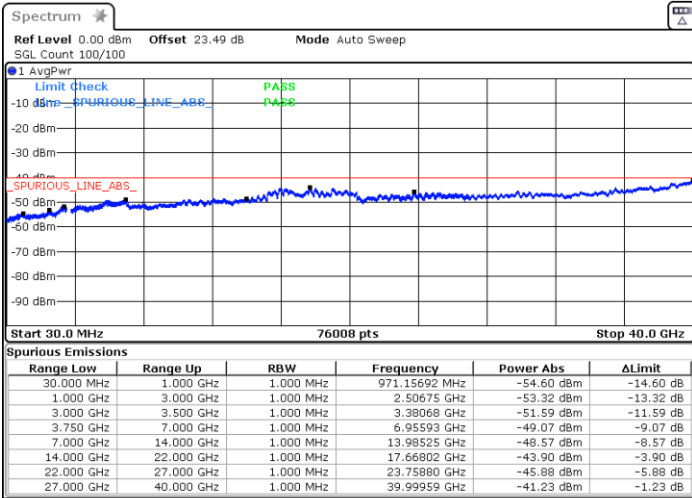


# Conducted Spurious Emission

FR1 n48 / 10MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB

Middle Channel / 1RB

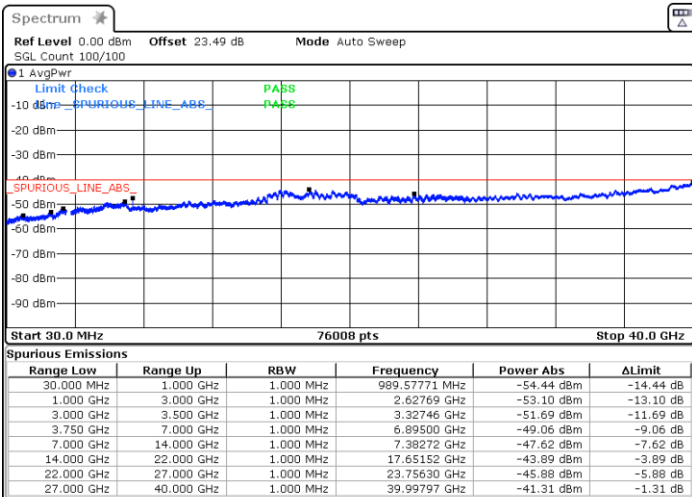


Date: 9.MAR.2023 22:20:47

Date: 9.MAR.2023 22:22:20

Highest Channel / 1RB

NA



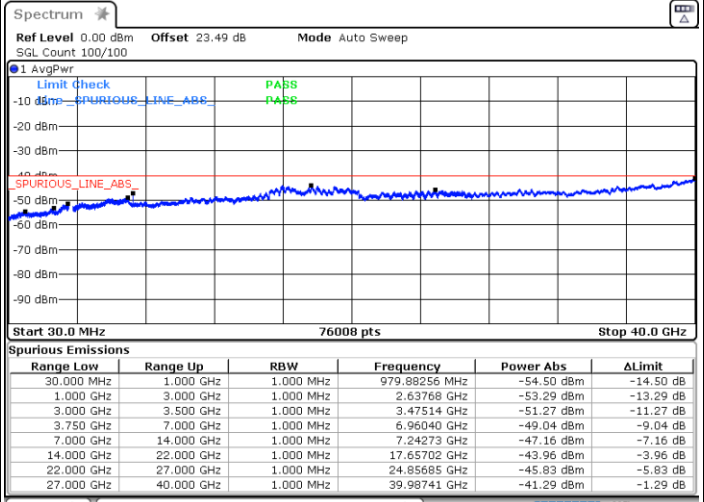
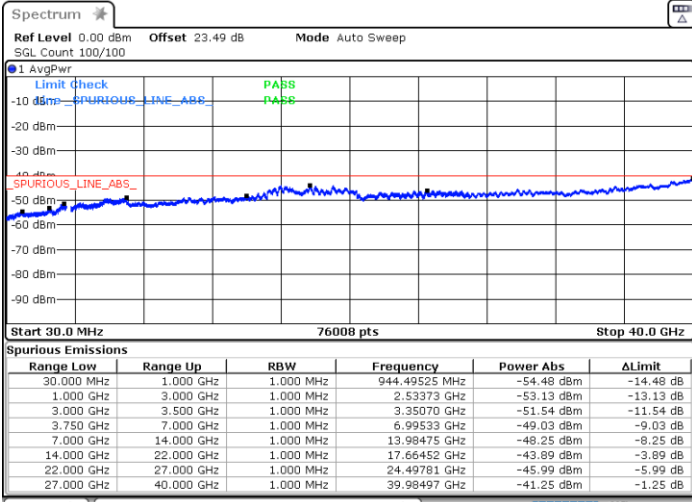
Date: 9.MAR.2023 22:35:33



FR1 n48 / 10MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB

Middle Channel / 1RB

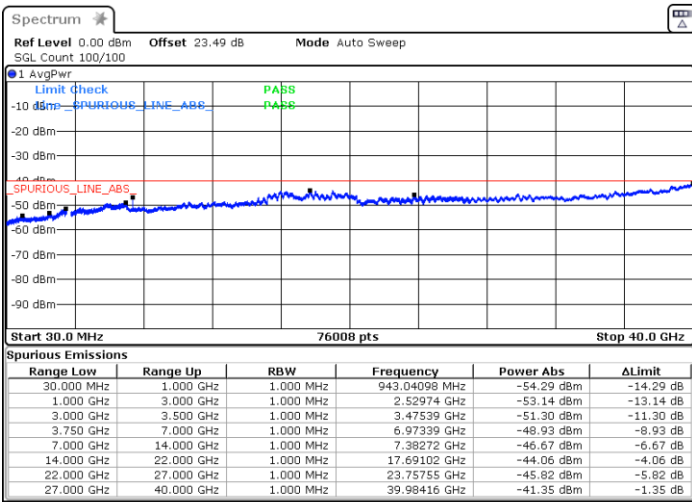


Date: 9.MAR.2023 22:19:19

Date: 9.MAR.2023 22:25:29

Highest Channel / 1RB

NA



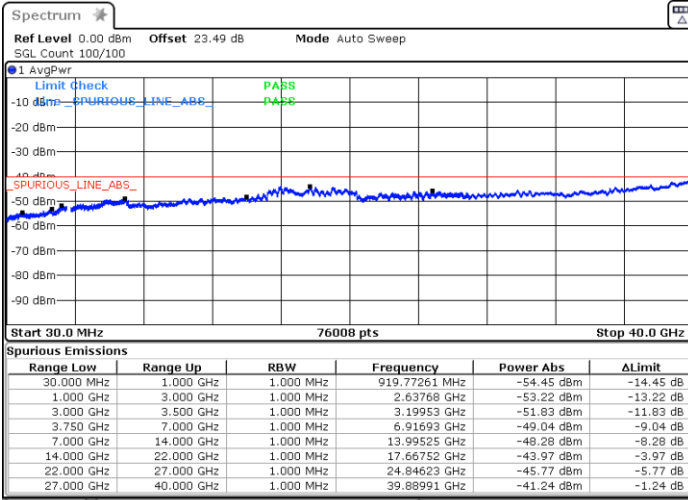
Date: 9.MAR.2023 22:37:58



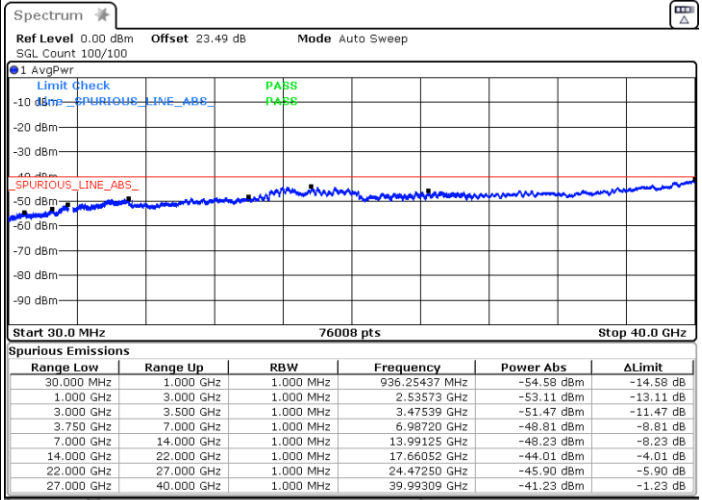
FR1 n48 / 50MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB

Middle Channel / 1RB



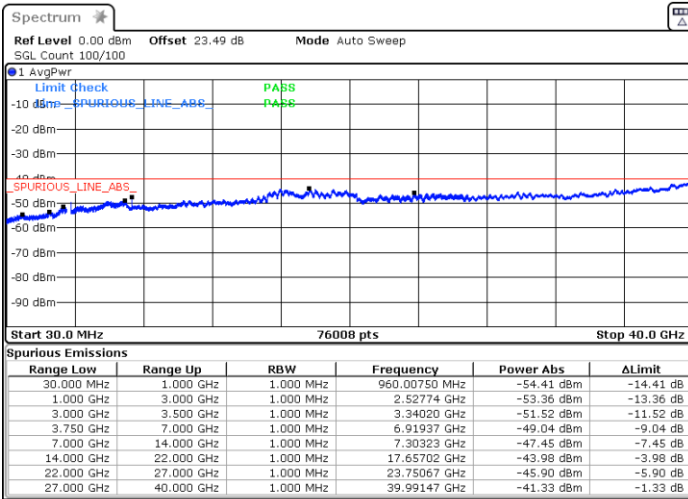
Date: 9.MAR.2023 22:05:18



Date: 9.MAR.2023 22:06:58

Highest Channel / 1RB

NA



Date: 9.MAR.2023 22:13:34

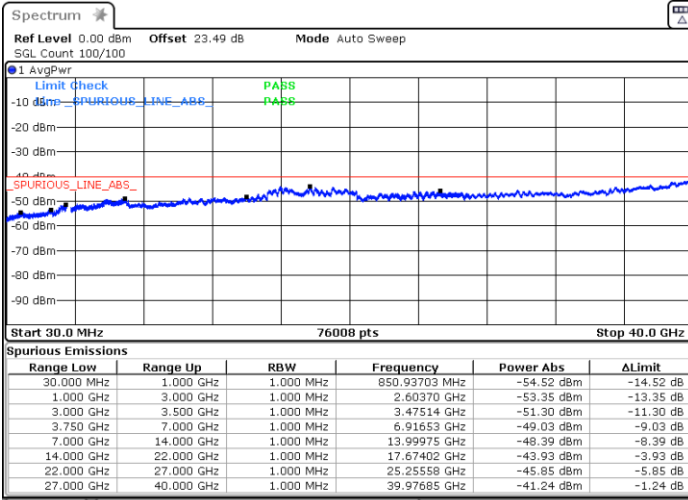




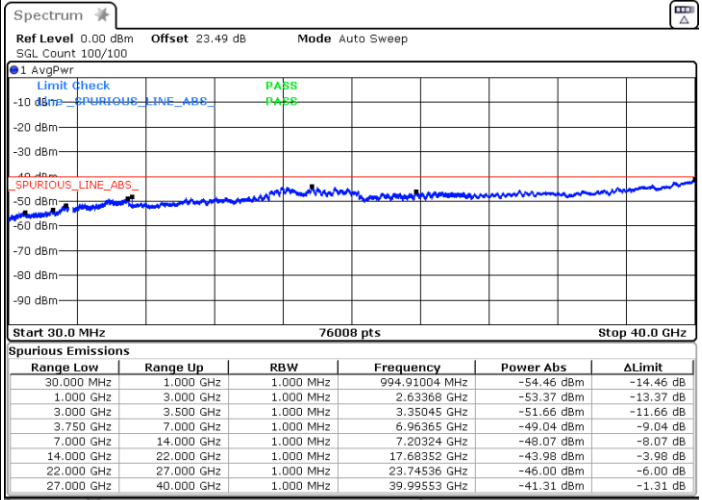
FR1 n48 / 50MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB

Middle Channel / 1RB



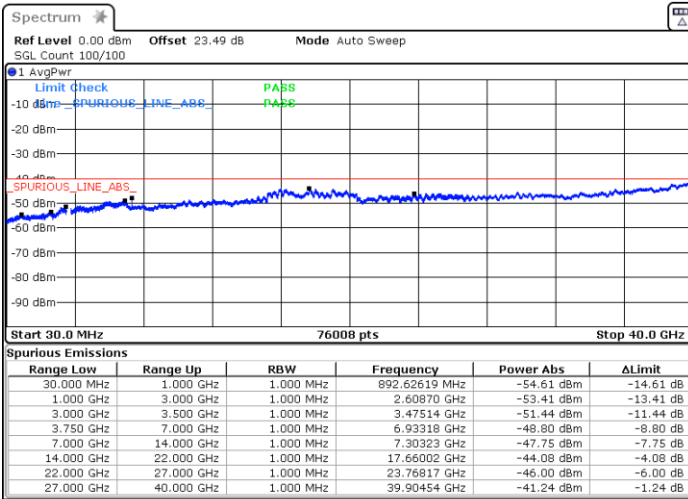
Date: 9.MAR.2023 22:03:52



Date: 9.MAR.2023 22:08:26

Highest Channel / 1RB

NA



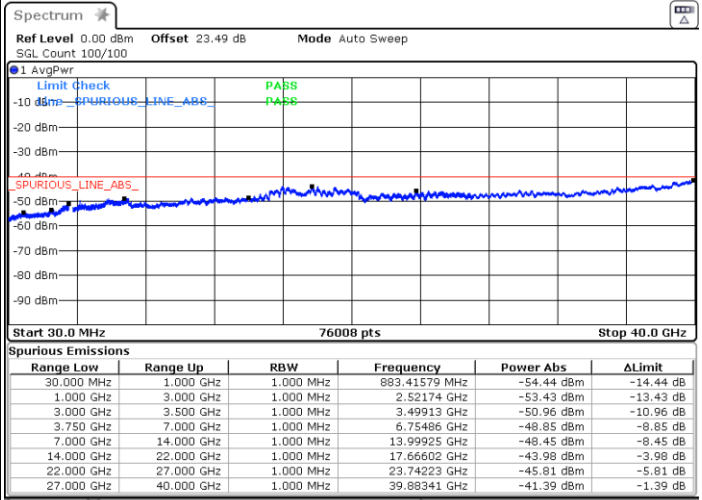
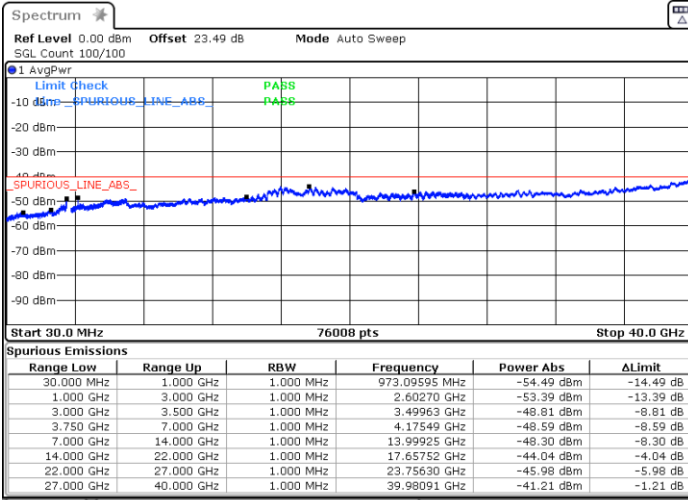
Date: 9.MAR.2023 22:16:30



FR1 n48 / 100MHz / DFT-S OFDM / BPSK

Lowest Channel / 1RB

Middle Channel / 1RB

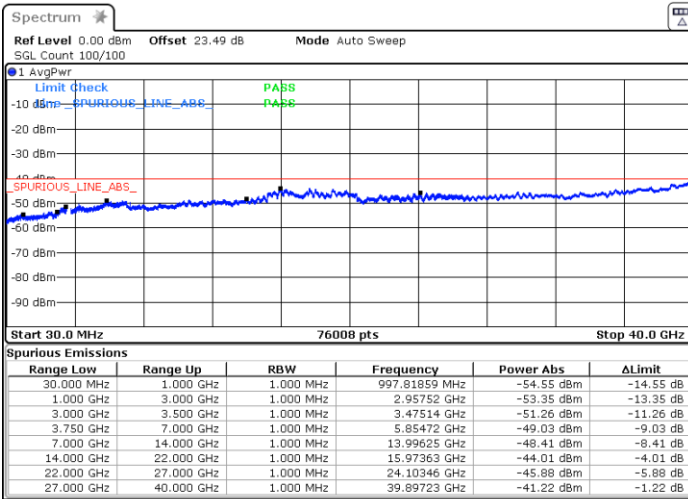


Date: 9.MAR.2023 21:49:26

Date: 9.MAR.2023 21:40:51

Highest Channel / 1RB

NA



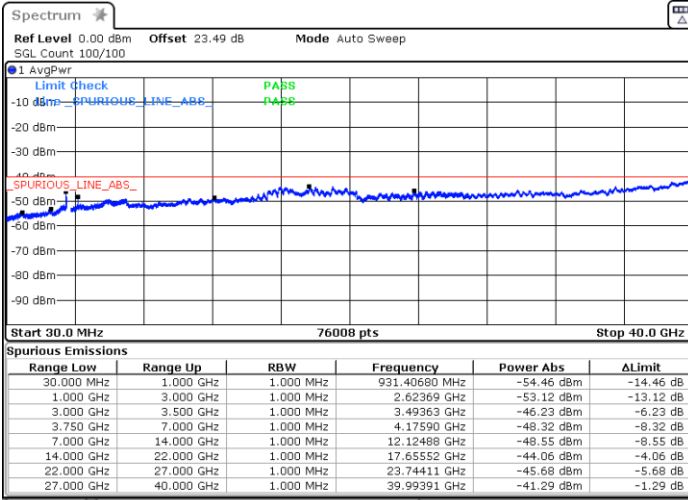
Date: 9.MAR.2023 21:51:04



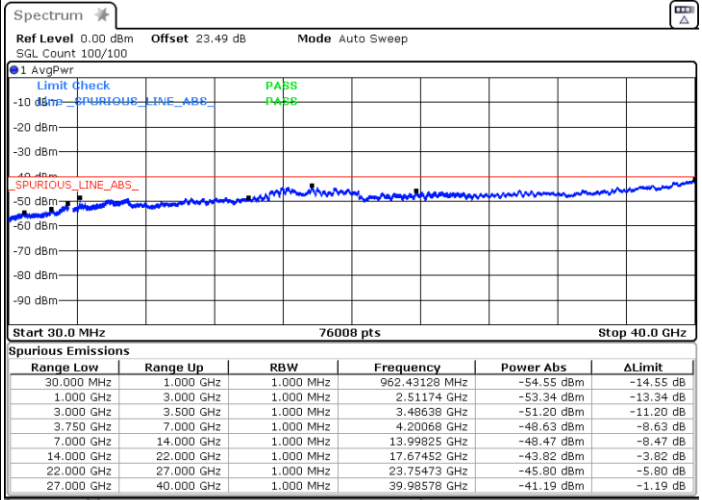
FR1 n48 / 100MHz / DFT-S OFDM / QPSK

Lowest Channel / 1RB

Middle Channel / 1RB



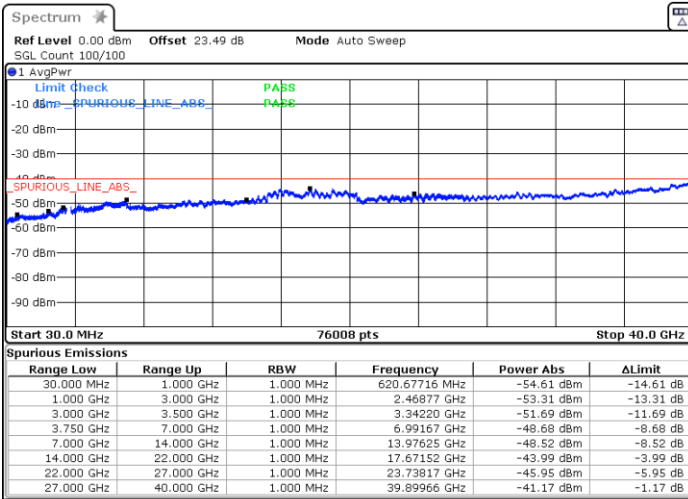
Date: 9.MAR.2023 21:48:01



Date: 9.MAR.2023 21:46:16

Highest Channel / 1RB

NA



Date: 9.MAR.2023 21:52:54



Frequency Stability

Test Conditions		FR1 n48 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0015	PASS
40	Normal Voltage	0.0026	
30	Normal Voltage	0.0017	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0034	
0	Normal Voltage	0.0011	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0008	
-30	Normal Voltage	0.0003	
20	Maximum Voltage	0.0024	
20	Normal Voltage	0.0026	
20	Battery End Point	0.0038	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.3 V. ; Maximum Voltage =4.3 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# FR1 n48 UL MIMO

## 26dB Bandwidth

Mode	FR1 n48 : 26dB BW(10 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	9.37	9.43	9.37	9.25
Mode	FR1 n48 : 26dB BW(15 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	14.39	14.33	14.54	14.42
Mode	FR1 n48 : 26dB BW(20 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	19.22	19.74	19.38	19.10
Mode	FR1 n48 : 26dB BW(40 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	40.20	40.28	40.20	40.12
Mode	FR1 n48 : 26dB BW(50 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	49.75	49.75	49.75	49.75
Mode	FR1 n48 : 26dB BW(60 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	60.18	60.42	60.42	60.30
Mode	FR1 n48 : 26dB BW(80 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	79.92	79.92	79.76	79.92
Mode	FR1 n48 : 26dB BW(90 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	92.07	92.43	92.07	92.07
Mode	FR1 n48 : 26dB BW(100 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	102.3	102.3	102.3	102.3



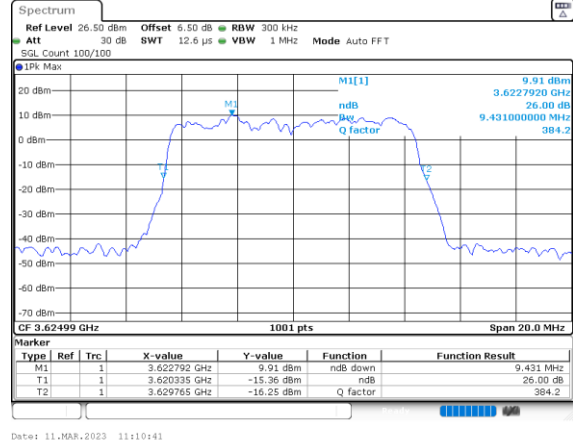
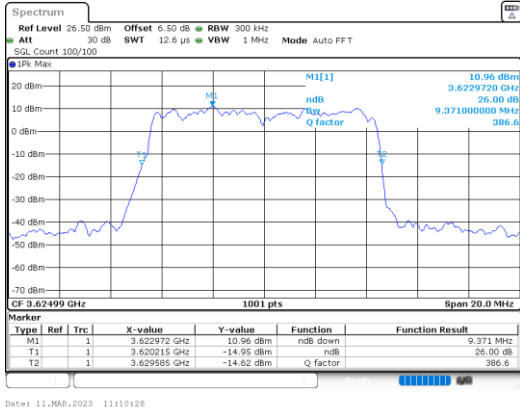
FR1 n48 / 10MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel

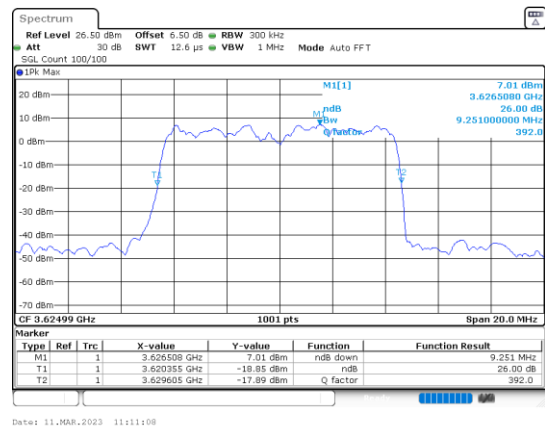
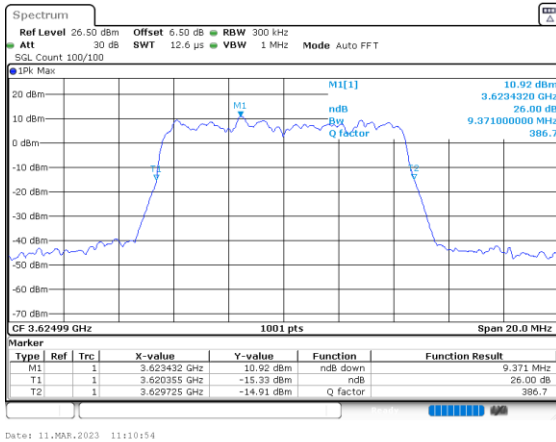


64QAM

256QAM

Middle Channel

Middle Channel





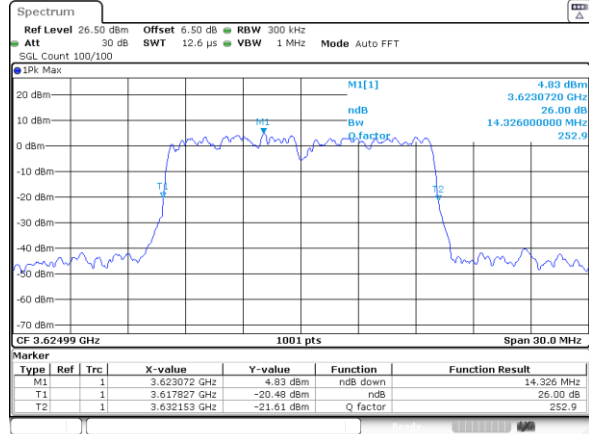
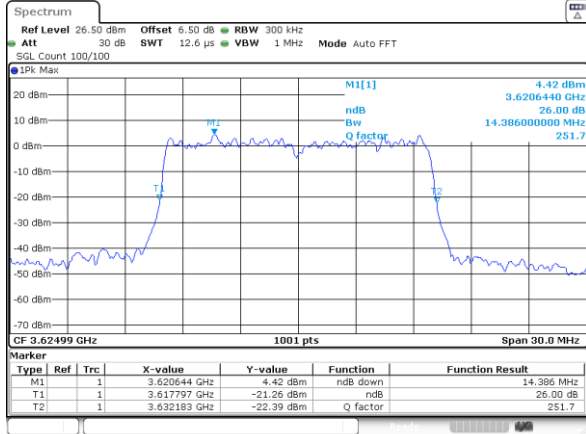
FR1 n48 / 15MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 18.MAY.2023 19:00:59

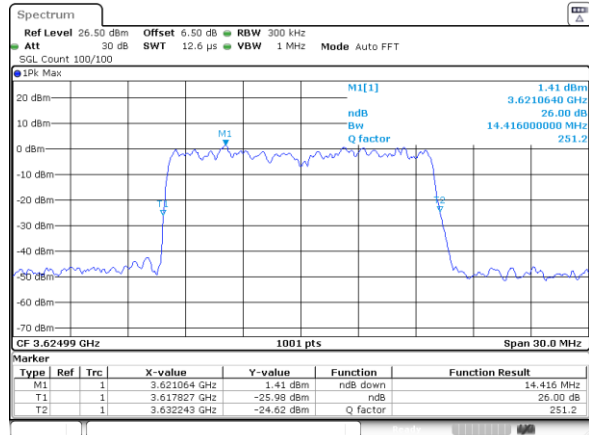
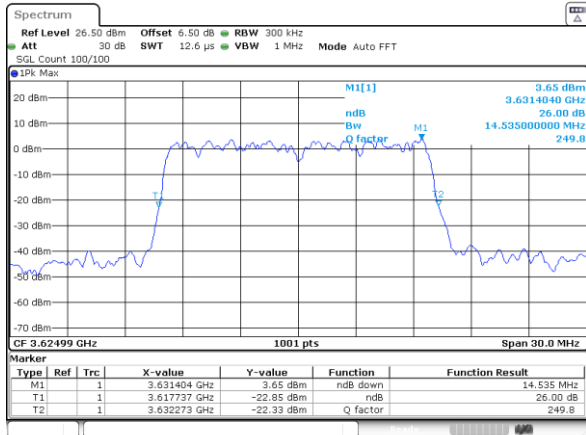
Date: 18.MAY.2023 19:01:20

64QAM

256QAM

Middle Channel

Middle Channel



Date: 18.MAY.2023 19:01:40

Date: 18.MAY.2023 19:02:00



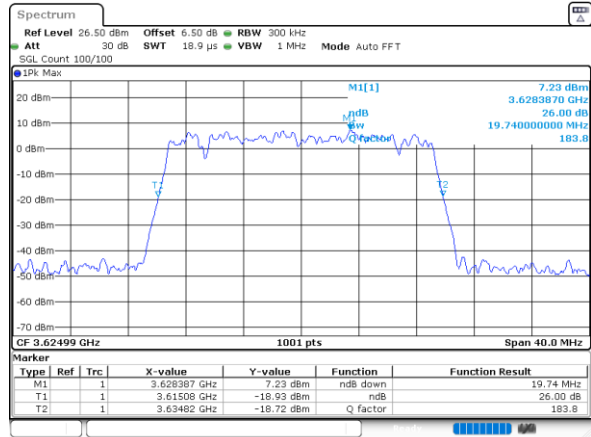
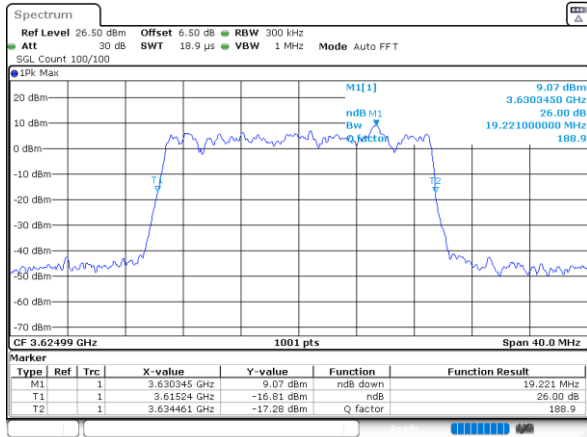
FR1 n48 / 20MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 11.MAR.2023 11:11:36

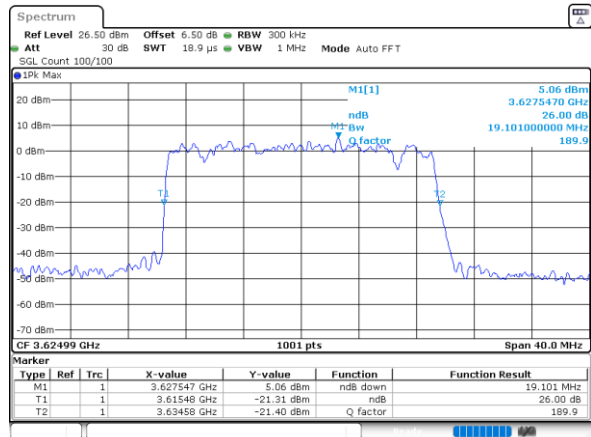
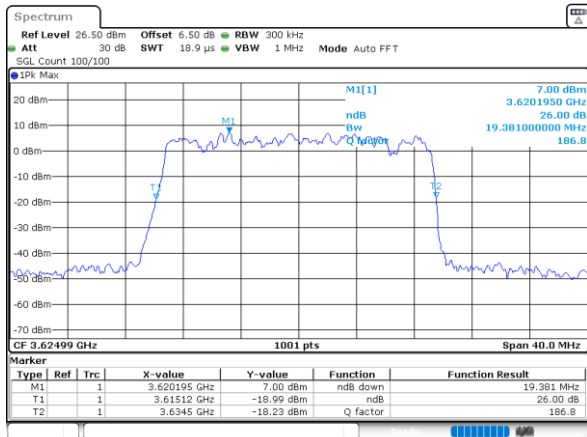
Date: 11.MAR.2023 11:11:53

64QAM

256QAM

Middle Channel

Middle Channel



Date: 11.MAR.2023 11:12:09

Date: 11.MAR.2023 11:12:23





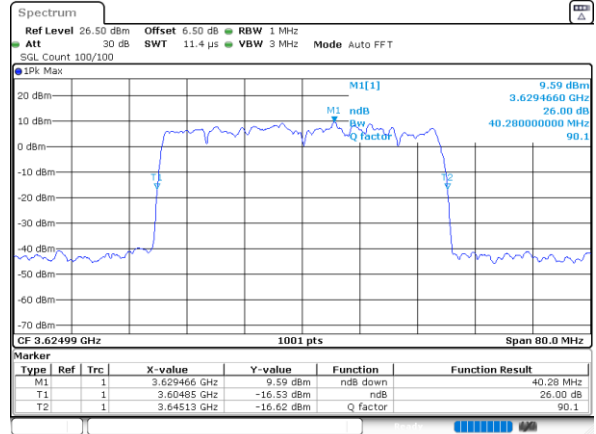
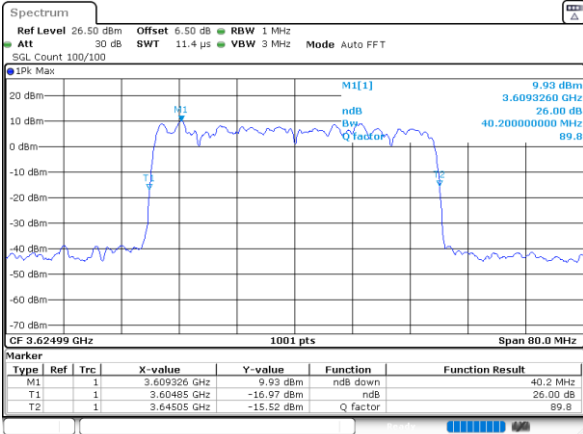
FR1 n48 / 40MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 11.MAR.2023 11:15:49

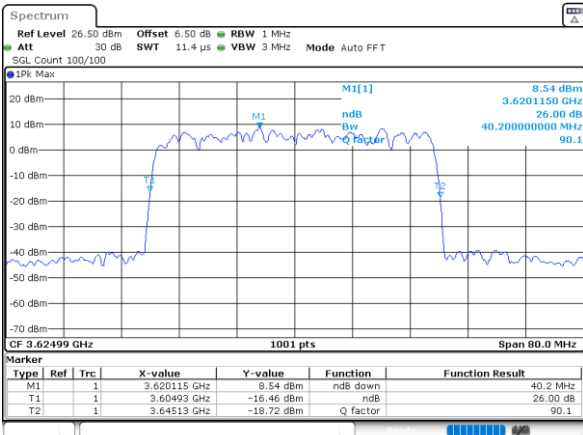
Date: 11.MAR.2023 11:16:03

64QAM

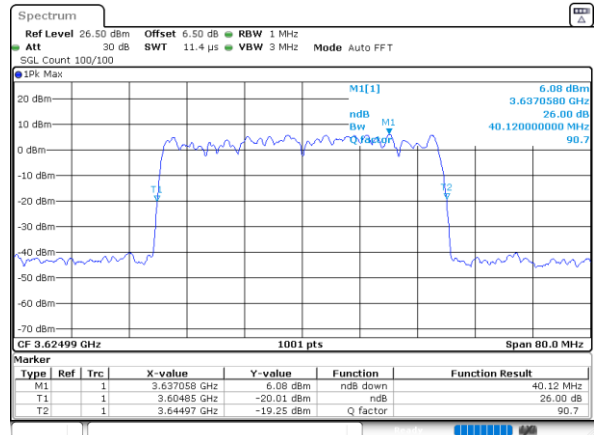
256QAM

Middle Channel

Middle Channel



Date: 11.MAR.2023 11:16:19



Date: 11.MAR.2023 11:16:33



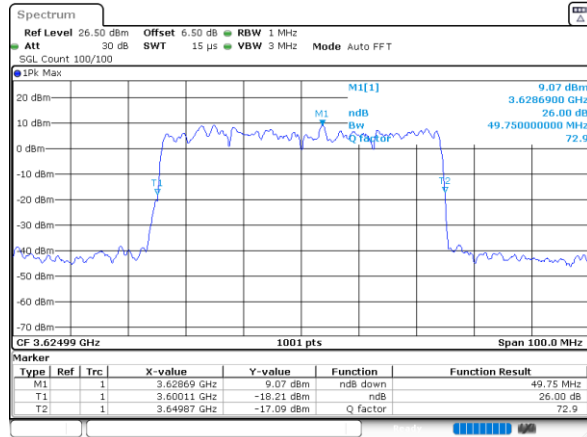
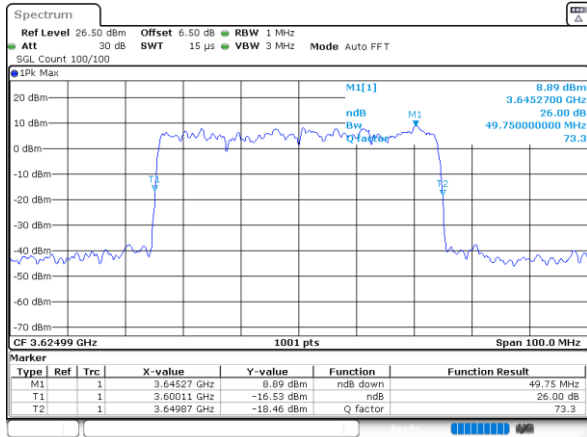
FR1 n48 / 50MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 11.MAR.2023 11:17:03

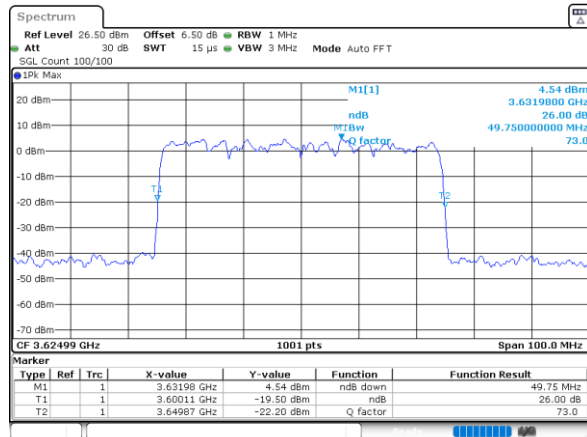
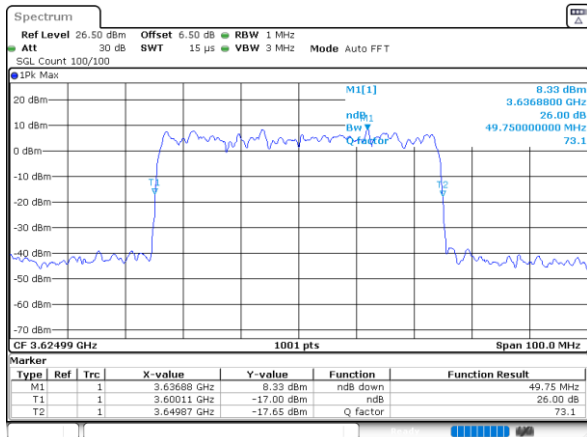
Date: 11.MAR.2023 11:17:19

64QAM

256QAM

Middle Channel

Middle Channel



Date: 11.MAR.2023 11:17:35

Date: 11.MAR.2023 11:17:51



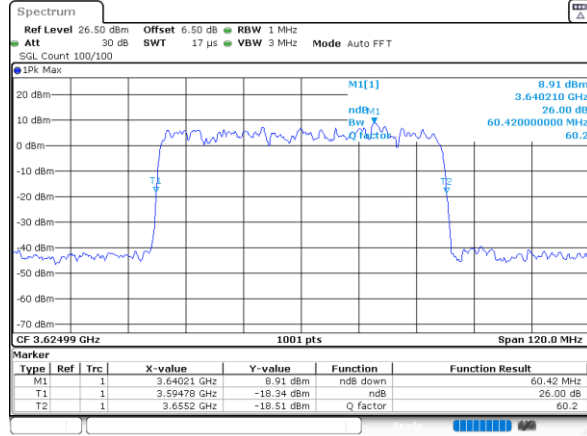
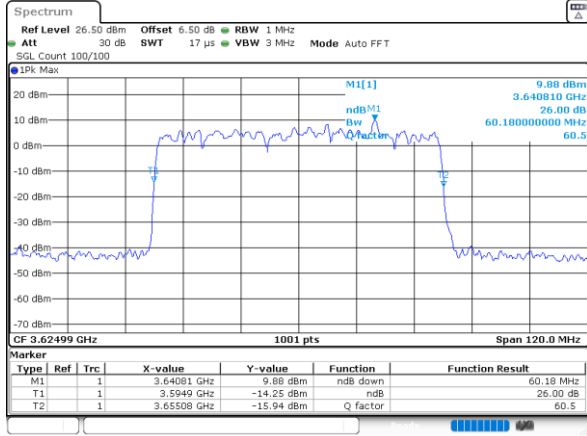
FR1 n48 / 60MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 11.MAR.2023 11:26:40

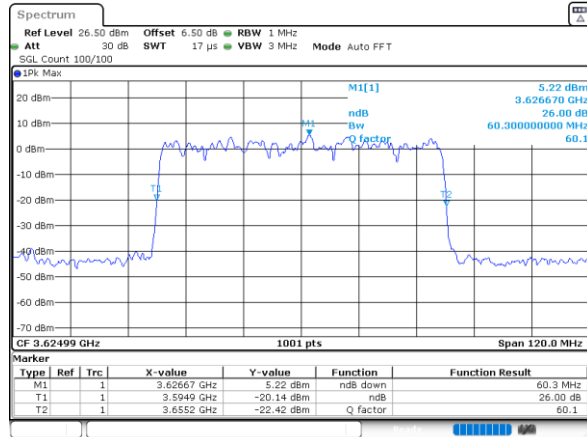
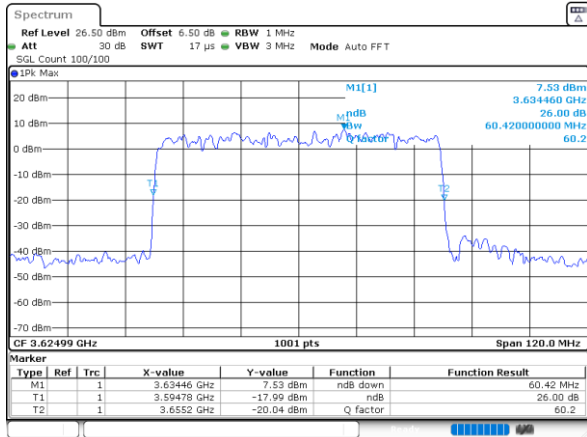
Date: 11.MAR.2023 11:26:57

64QAM

256QAM

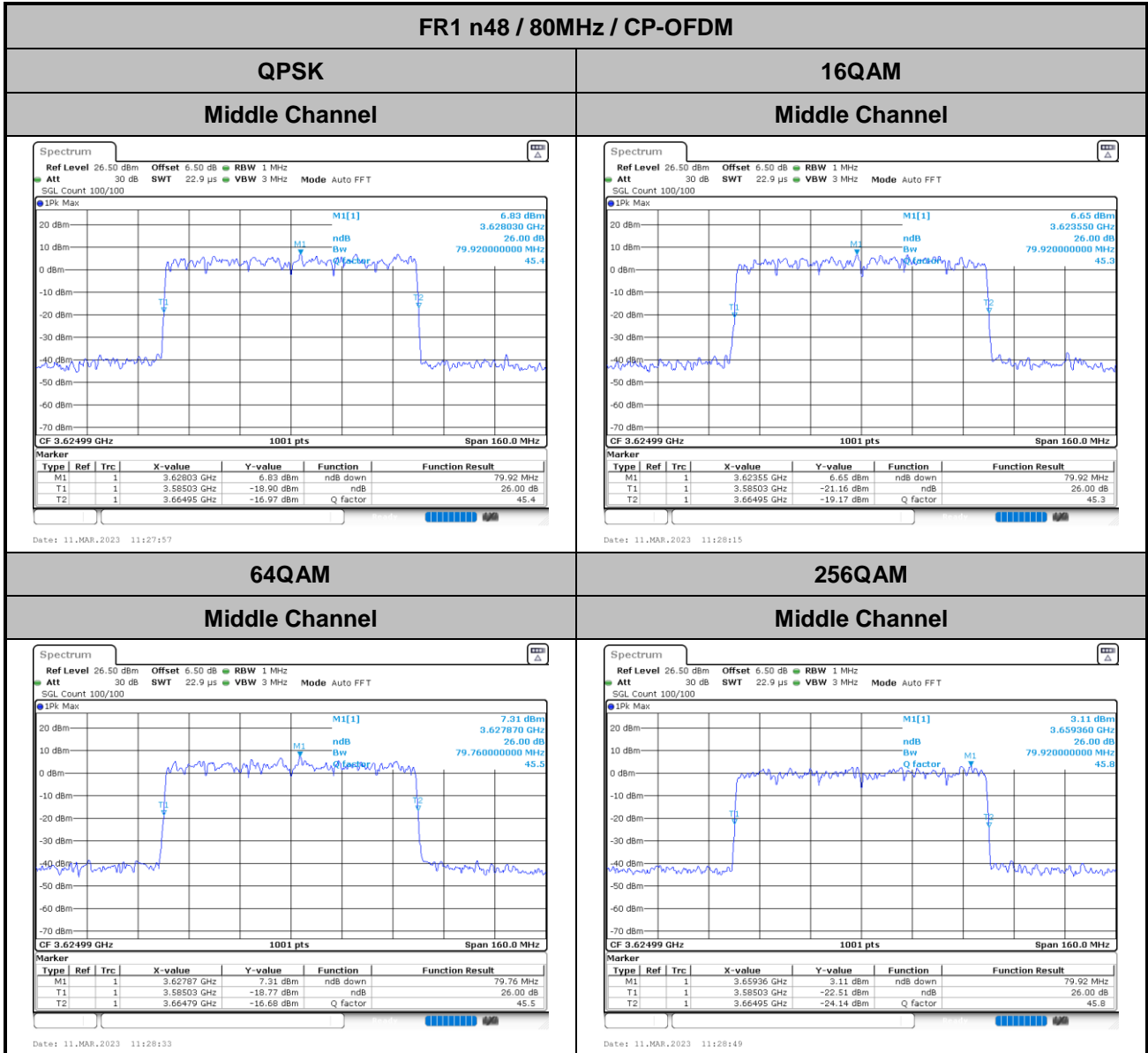
Middle Channel

Middle Channel



Date: 11.MAR.2023 11:27:13

Date: 11.MAR.2023 11:27:31





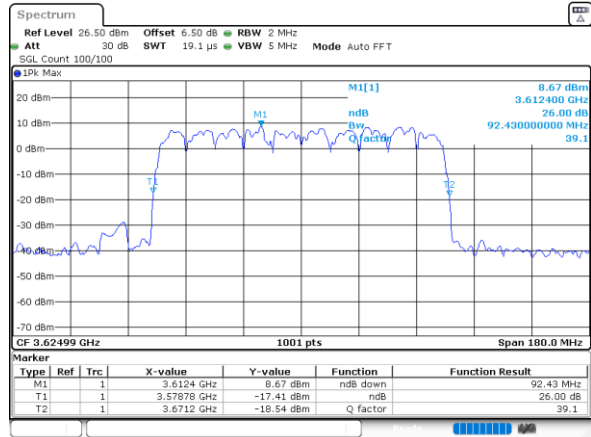
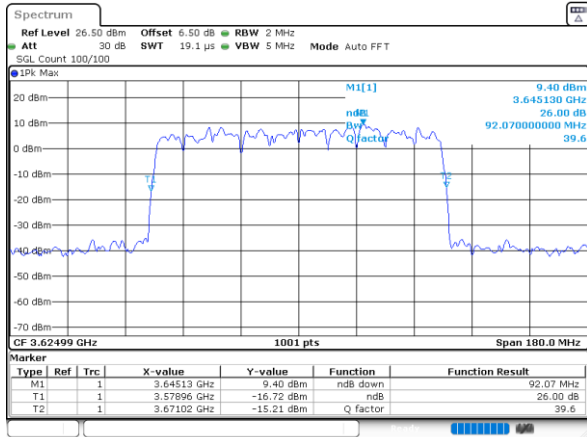
FR1 n48 / 90MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel

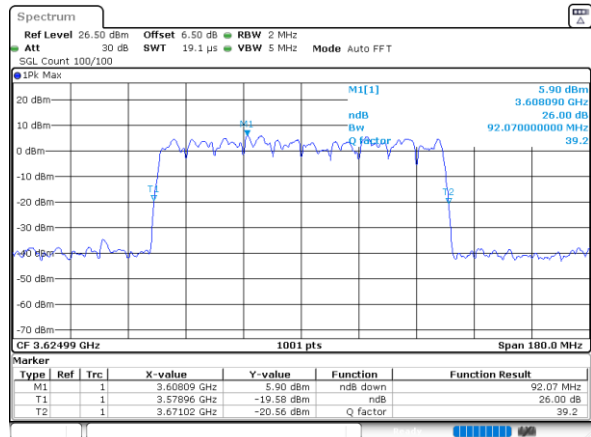
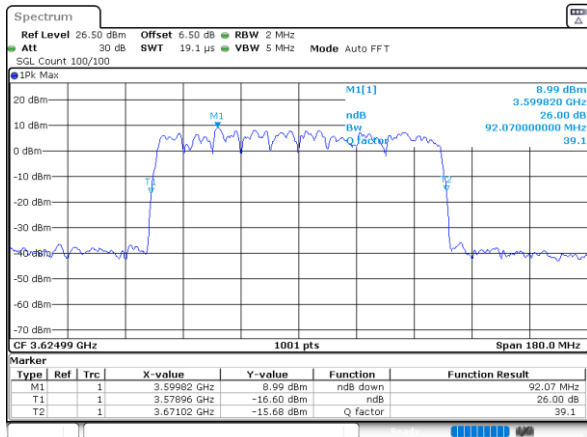


64QAM

256QAM

Middle Channel

Middle Channel





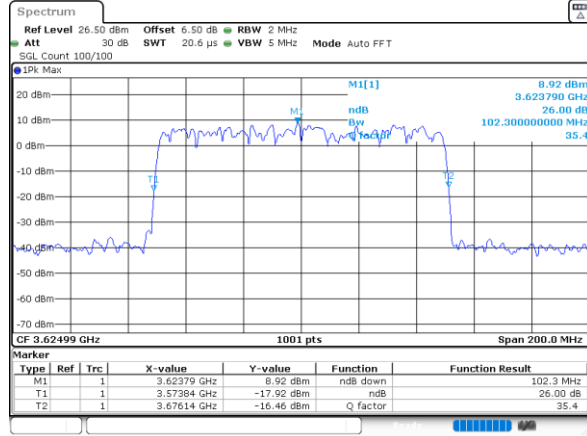
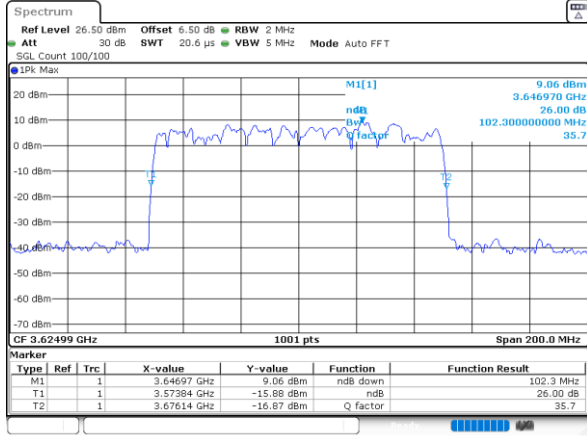
FR1 n48 / 100MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 11.MAR.2023 11:31:20

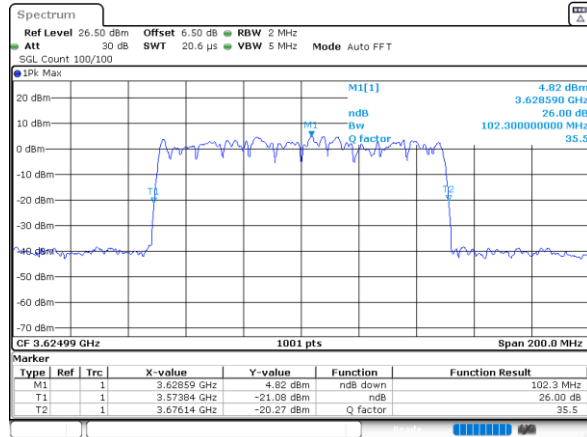
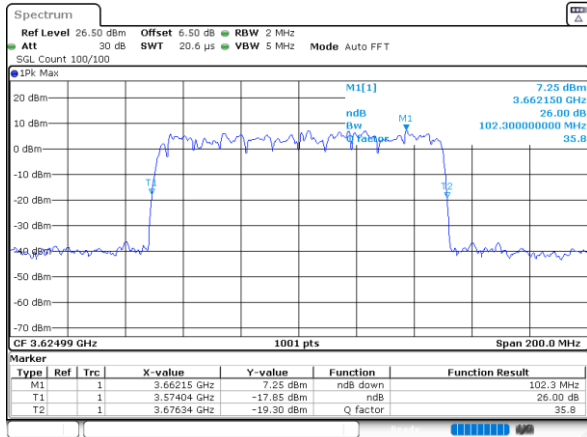
Date: 11.MAR.2023 11:31:40

64QAM

256QAM

Middle Channel

Middle Channel



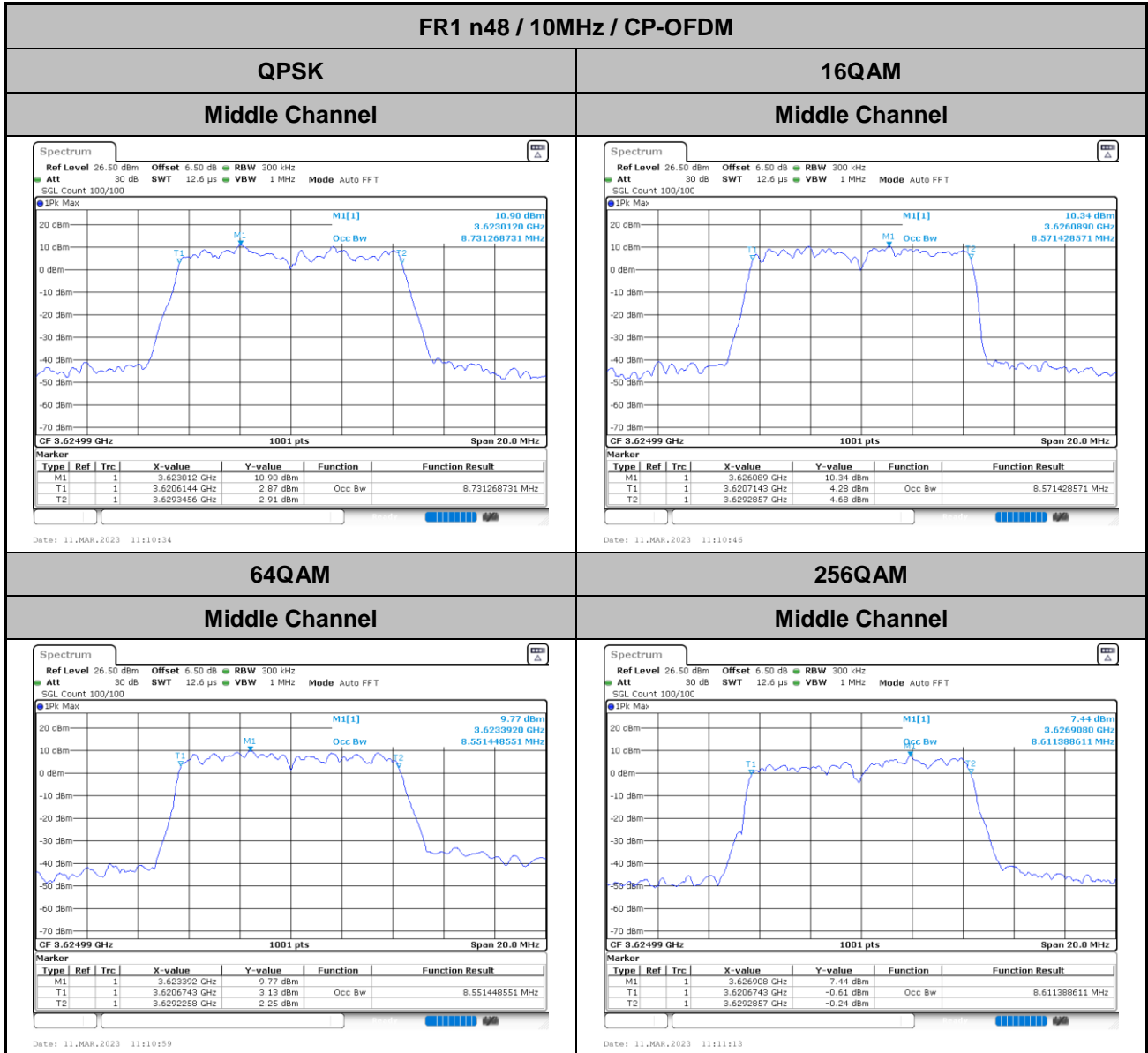
Date: 11.MAR.2023 11:31:58

Date: 11.MAR.2023 11:32:16



**Occupied Bandwidth**

Mode	FR1 n48 : OB BW(10 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	8.73	8.57	8.55	8.61
Mode	FR1 n48 : OB BW(15 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	13.61	13.58	13.67	13.58
Mode	FR1 n48 : OB BW(20 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	18.14	18.18	18.22	18.14
Mode	FR1 n48 : OB BW(40 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	38.04	38.04	38.12	38.20
Mode	FR1 n48 : OB BW(50 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	47.75	47.85	47.45	47.75
Mode	FR1 n48 : OB BW(60 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	57.90	57.78	57.54	57.66
Mode	FR1 n48 : OB BW(80 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	77.20	77.20	77.36	77.20
Mode	FR1 n48 : OB BW(90 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	87.57	87.75	86.85	87.75
Mode	FR1 n48 : OB BW(100 MHz) / CP OFDM			
BW	CP			
Mod.	QPSK	16QAM	64QAM	256QAM
Middle CH	97.10	97.30	97.50	97.50







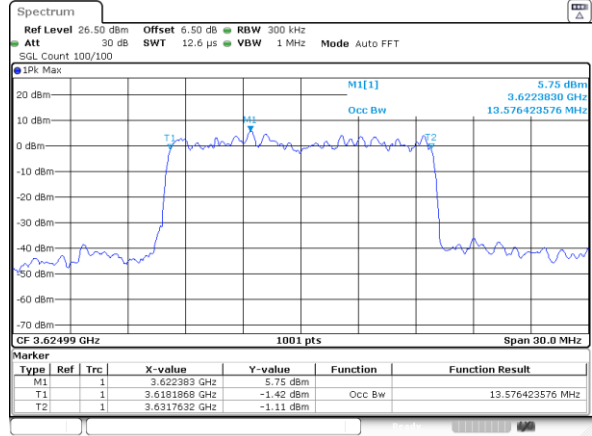
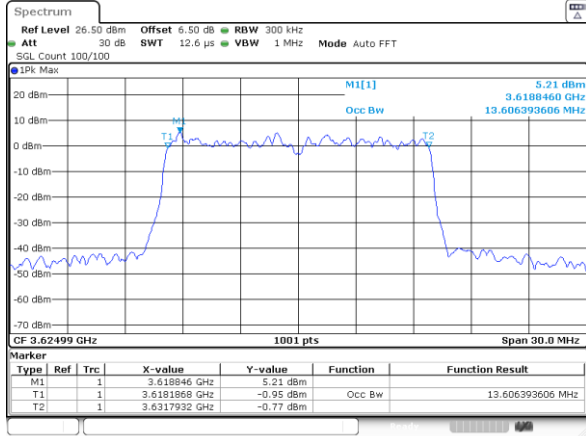
FR1 n48 / 15MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 18.MAY.2023 19:01:05

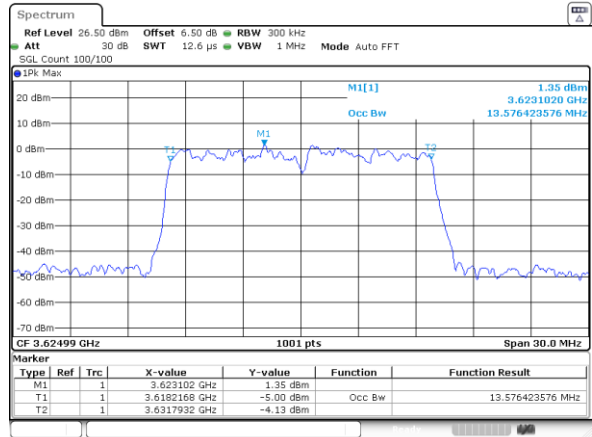
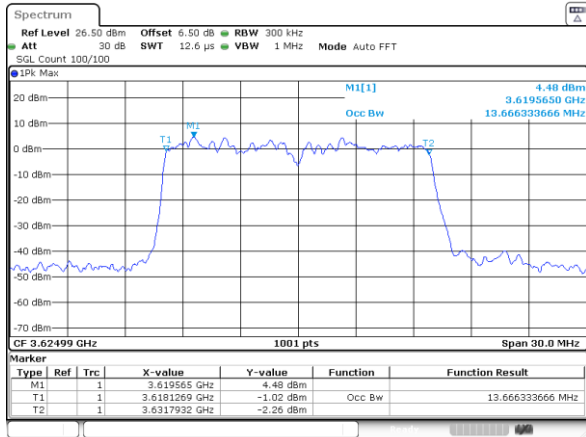
Date: 18.MAY.2023 19:01:26

64QAM

256QAM

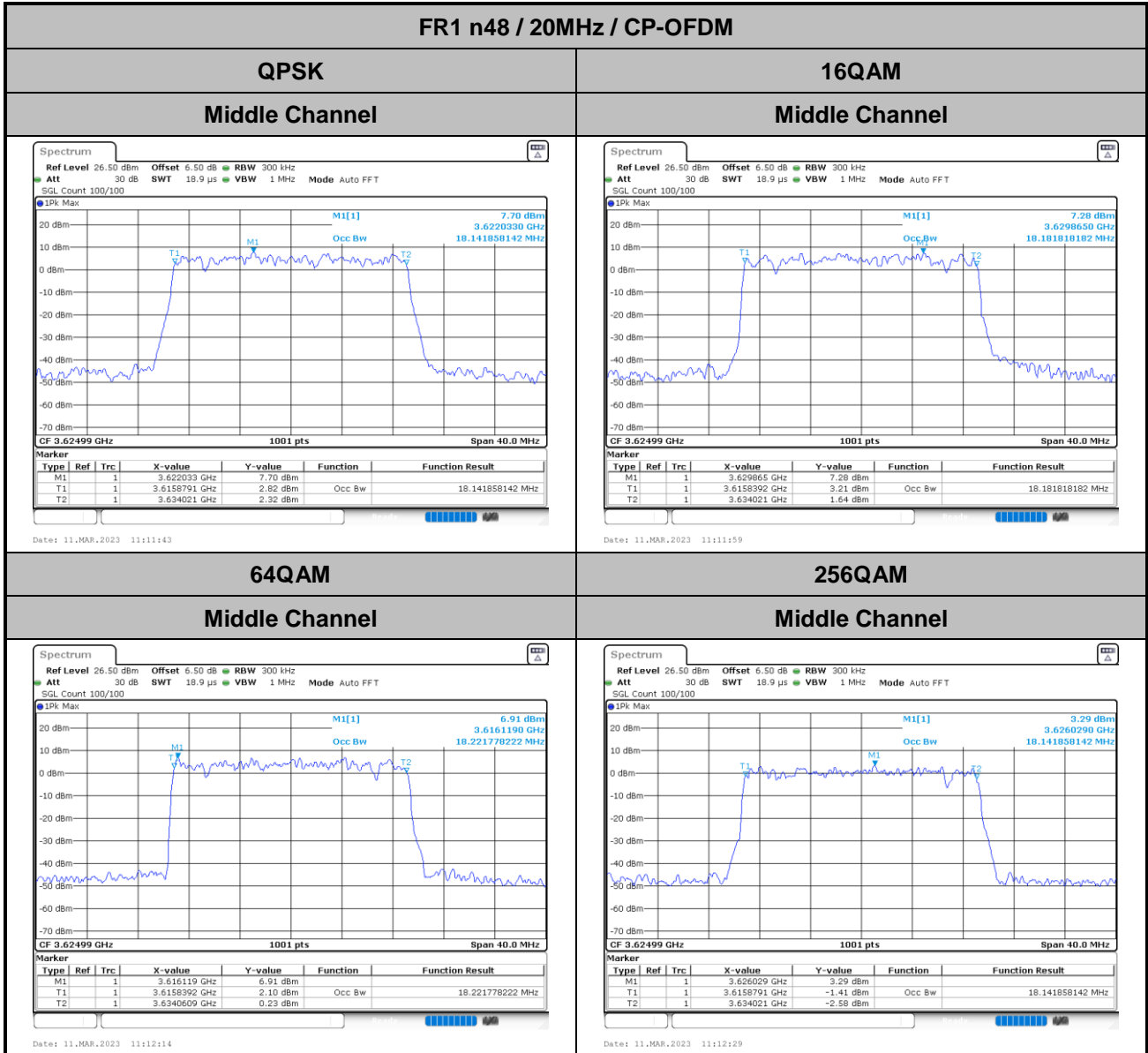
Middle Channel

Middle Channel



Date: 18.MAY.2023 19:01:46

Date: 18.MAY.2023 19:02:07





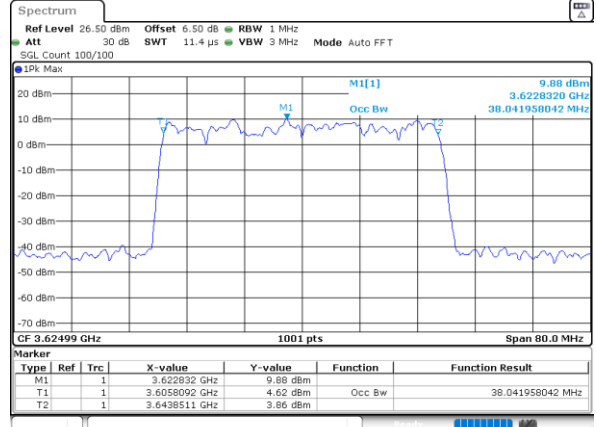
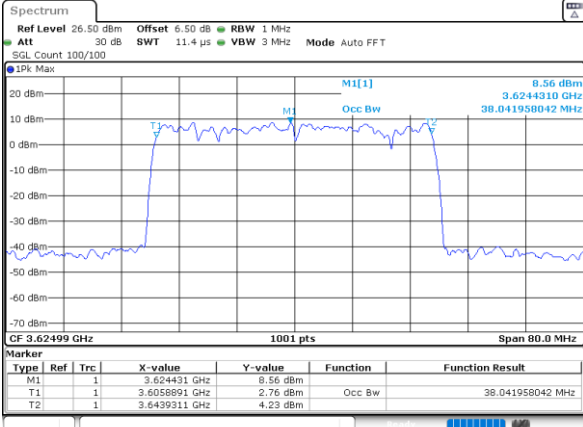
FR1 n48 / 40MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 11.MAR.2023 11:15:55

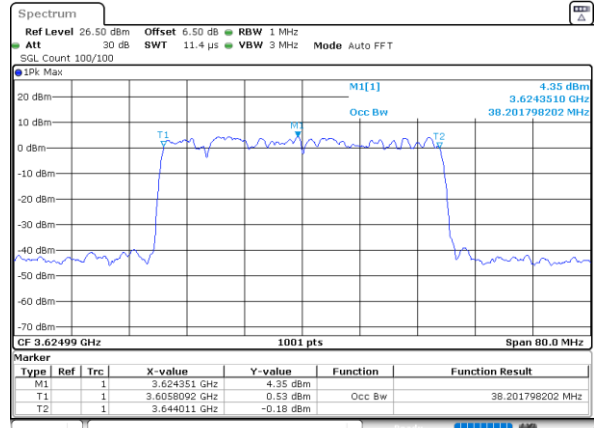
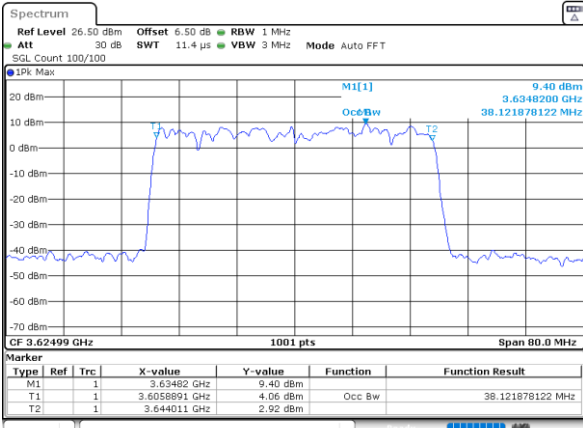
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64QAM

256QAM

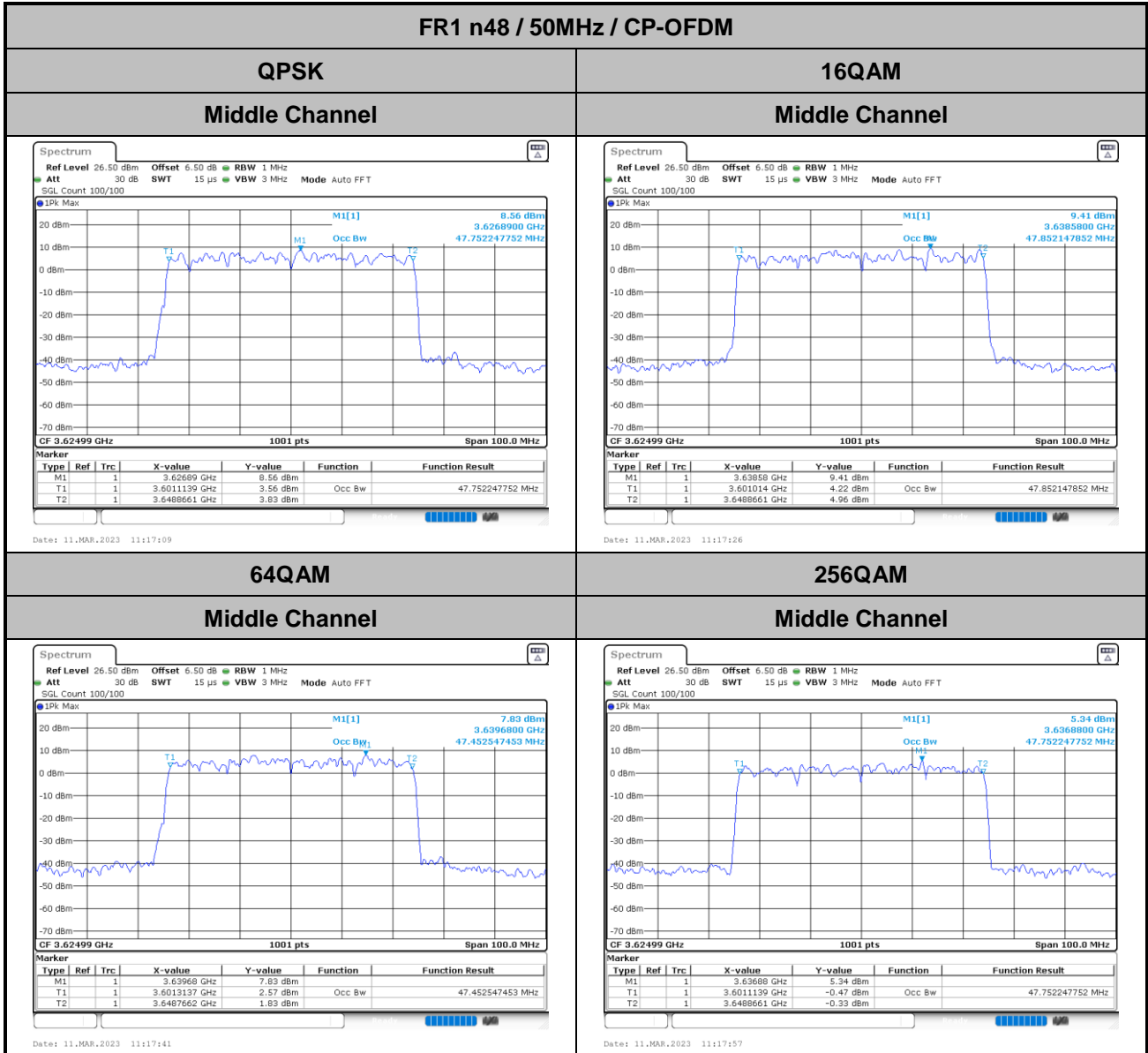
Middle Channel

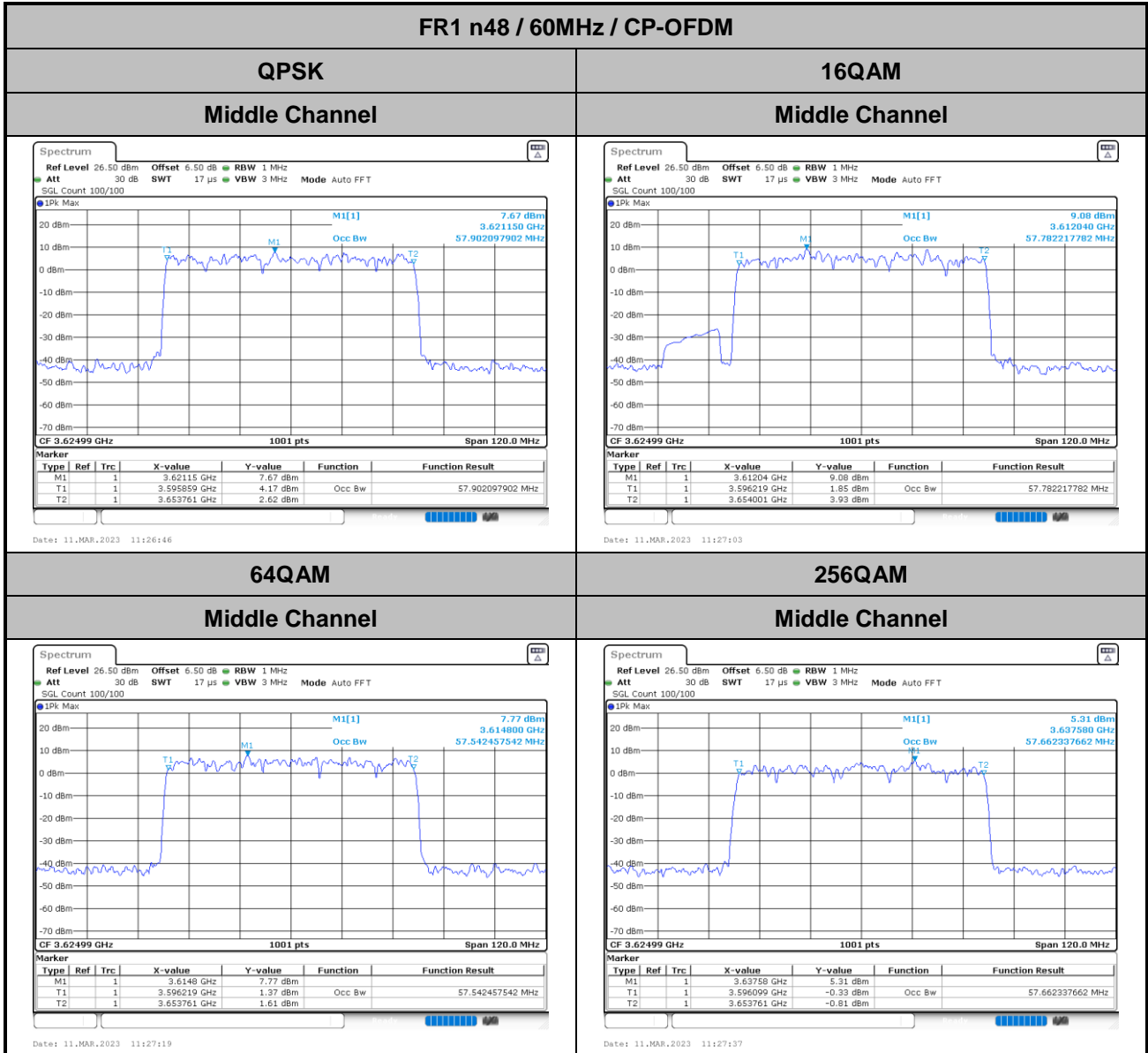
Middle Channel



Date: 11.MAR.2023 11:16:25

Date: 11.MAR.2023 11:16:39







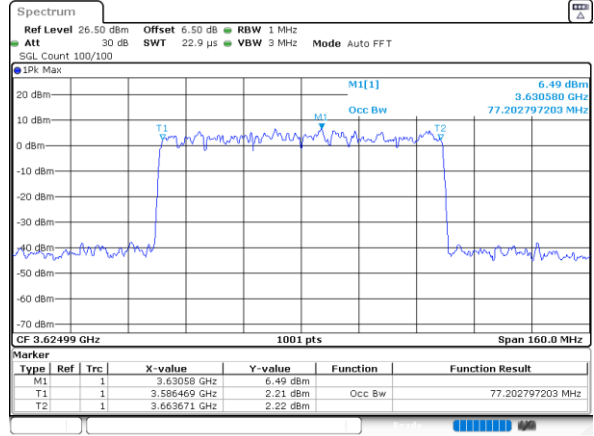
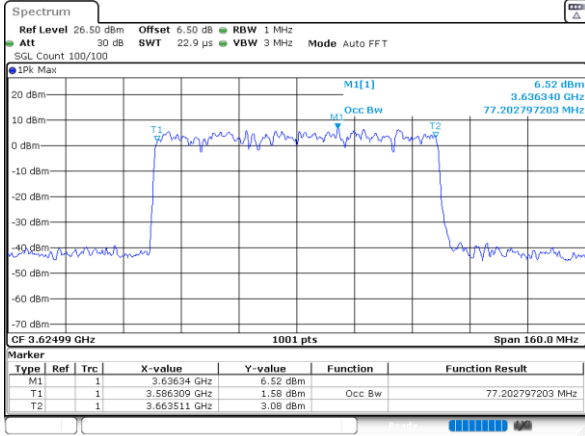
FR1 n48 / 80MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 11.MAR.2023 11:28:03

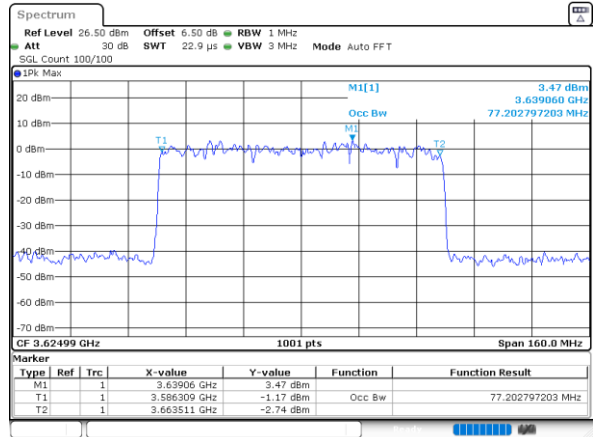
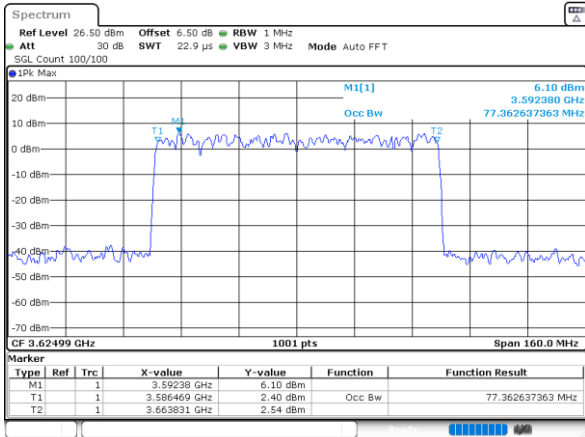
Date: 11.MAR.2023 11:28:22

64QAM

256QAM

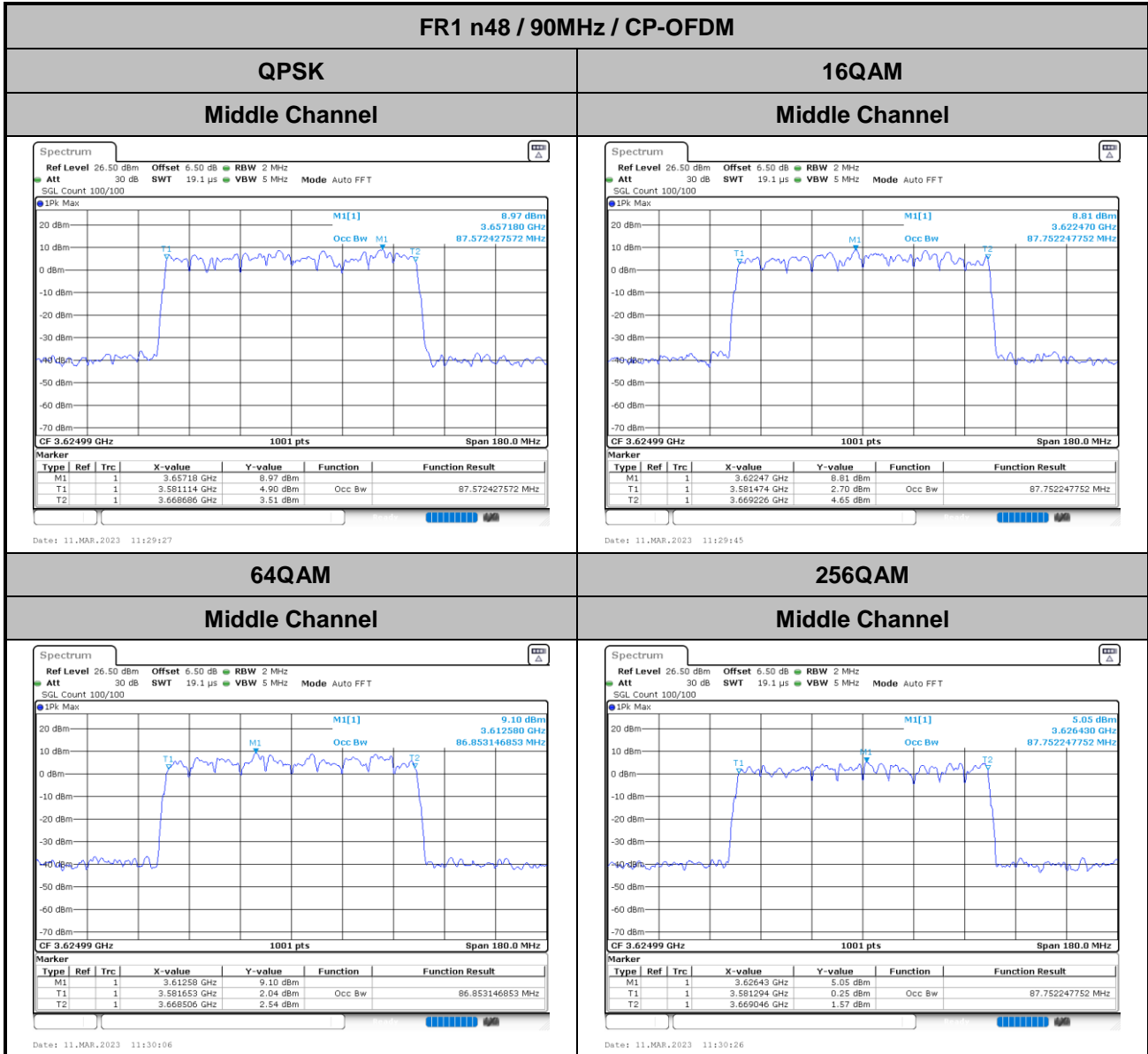
Middle Channel

Middle Channel



Date: 11.MAR.2023 11:28:59

Date: 11.MAR.2023 11:28:55





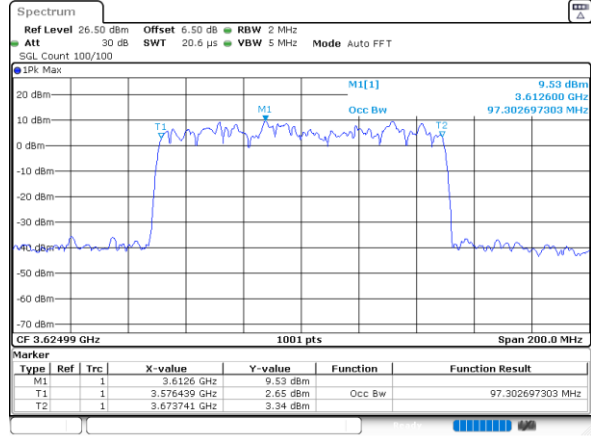
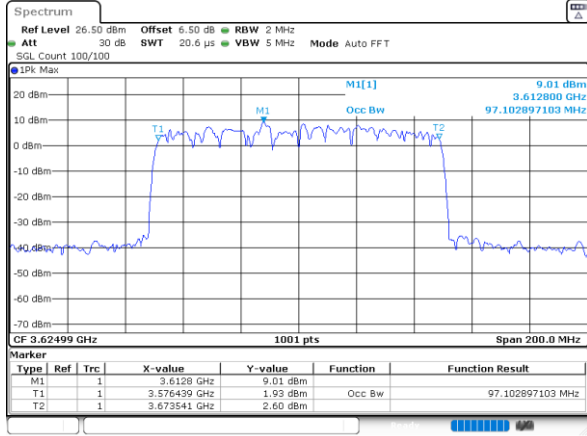
FR1 n48 / 100MHz / CP-OFDM

QPSK

16QAM

Middle Channel

Middle Channel



Date: 11.MAR.2023 11:31:27

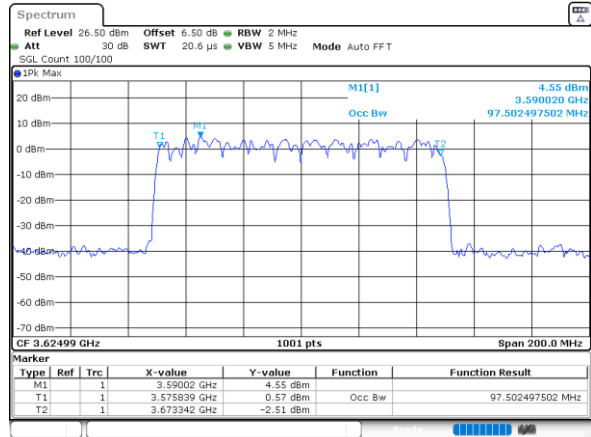
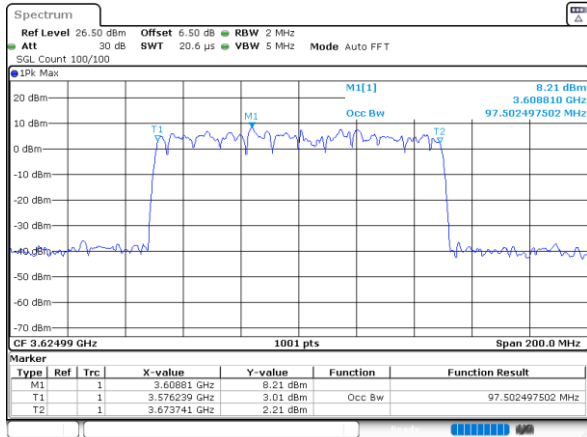
Date: 11.MAR.2023 11:31:47

64QAM

256QAM

Middle Channel

Middle Channel



Date: 11.MAR.2023 11:32:05

Date: 11.MAR.2023 11:32:13





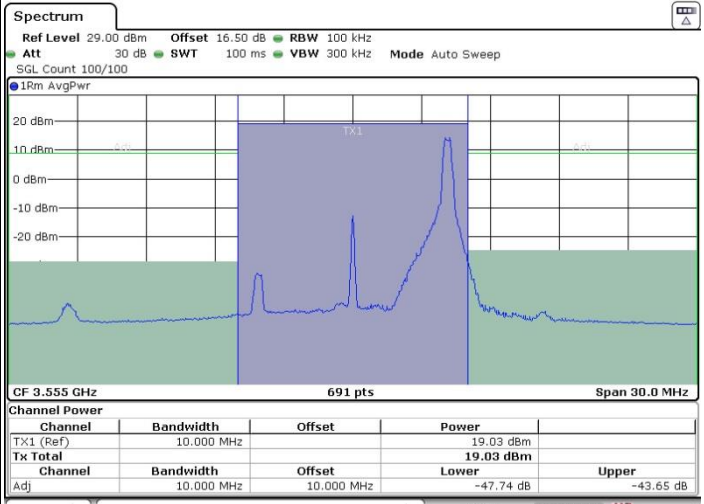
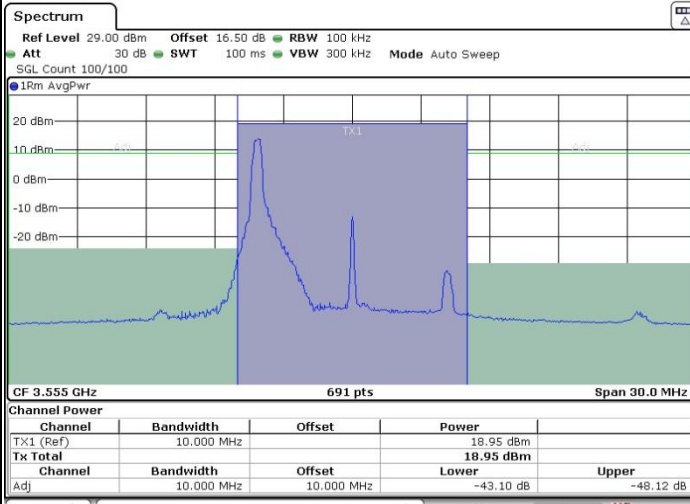
ACLR

FR1 n48 / 10MHz

QPSK

Lowest Channel / 1RB0

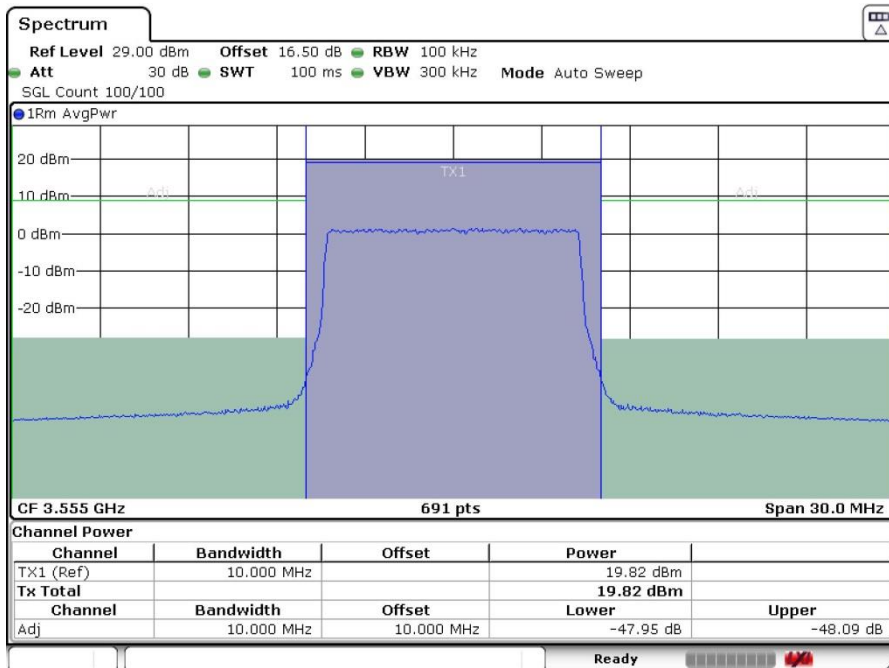
Lowest Channel / 1RBmax



Date: 14.MAR.2023 04:15:33

Date: 14.MAR.2023 04:19:11

Lowest Channel / FullIRB



Date: 14.MAR.2023 04:15:06

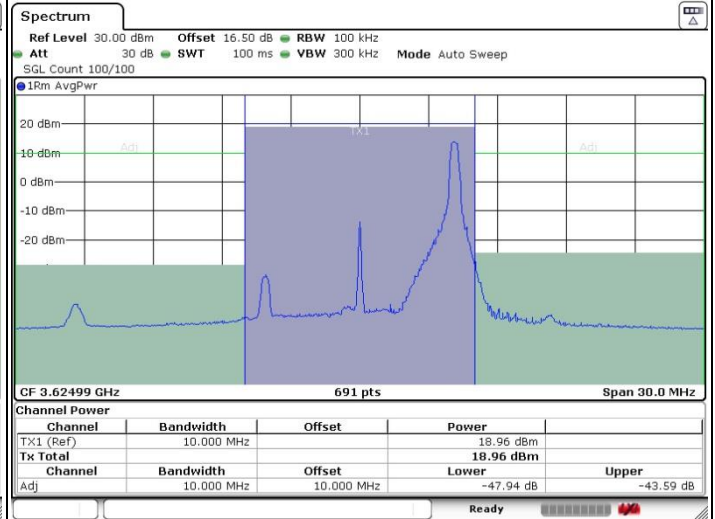
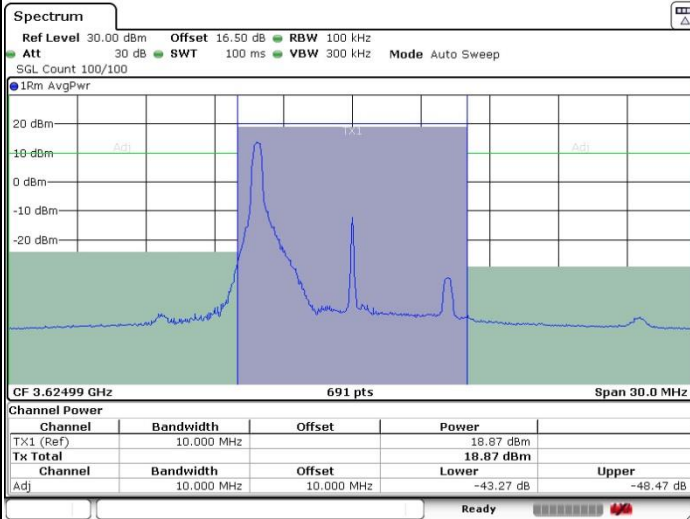


FR1 n48 / 10MHz

QPSK

Middle Channel / 1RB0

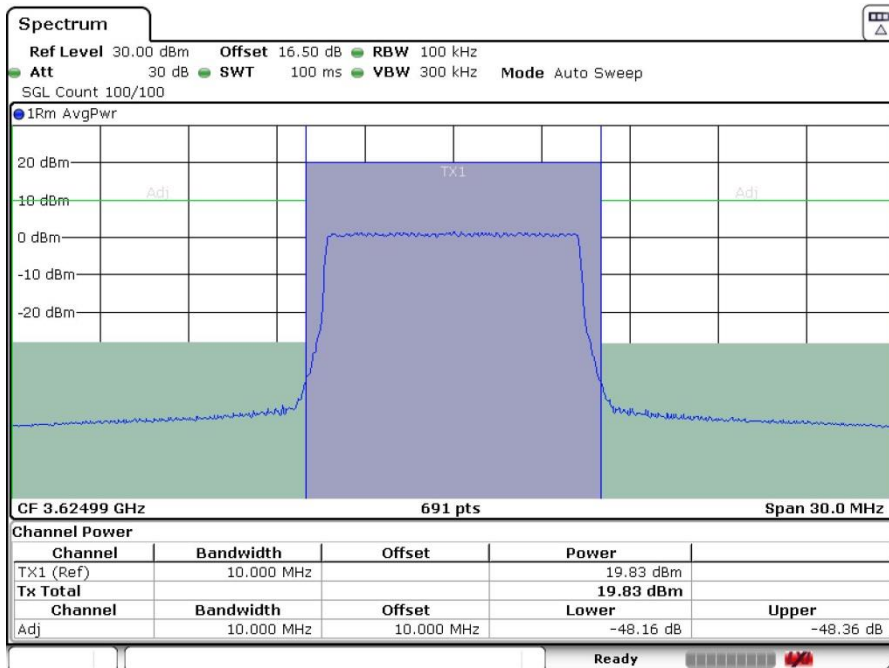
Middle Channel / 1RBmax



Date: 14.MAR.2023 04:25:03

Date: 14.MAR.2023 04:20:22

Middle Channel / FullRB



Date: 14.MAR.2023 04:25:39